

GROUNDWATER LEVELS
in the
SOUTHERN HIGH PLAINS
DESIGNATED GROUND WATER BASIN
2017



by
Andrew Flor



COLORADO
Division of Water Resources
Department of Natural Resources

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Groundwater Level Measurements in the Southern High Plains Designated Ground Water Basin 2017

This report contains the basic groundwater level data collected from wells in the Southern High Plains Designated Basin. Acquisition and publication of this information is a cooperative effort between the well owners, Southern High Plains Ground Water Management District (SHPGWMD) and the Colorado Division of Water Resources (DWR). The SHPGWMD has historically obtained the water levels, but starting in 2014 most of the water levels are measured by DWR staff. Help from Don Wood and Max Smith of the SHPGWMD during this transition was greatly appreciated. The project is part of a statewide groundwater level monitoring program funded by Senate Bill 200 (1987 legislative session). This legislation directed that a portion of the fees collected for water well permit applications be used for the establishment of a program to monitor groundwater level trends throughout the state.

Six distinct aquifers or aquifer combinations are present within the Southern High Plains Designated Ground Water Basin. These include unconsolidated alluvium, Ogallala, Dakota, Cheyenne, undifferentiated Dakota/Cheyenne, and Dockum aquifers. A stratigraphic chart, Figure 1, is included in this report to show the relative age and geologic relationship of these aquifers. The majority of the wells in the basin are completed in the Ogallala, Dakota/Cheyenne, or Dockum aquifers. In general, wells in the southeast portion of the basin are completed in the Ogallala and Dockum aquifers while those in the northwest portion of the basin are completed in the Dakota and/or Cheyenne aquifers. Until 2009 these aquifer units were administered separately. On June 30, 2009, the Colorado Ground Water Commission accepted amended Rule 5.2.3 for the Southern High Plains Designated Ground Water Basin so that all of the aquifers identified above can be administered as a single geo-hydraulic system.

A total of 70 well water levels were measured and recorded during the month of March 2017. Water levels were not measured in 18 wells that were pumping or where access was restricted. Figure 2 shows the location and designation of all 88 monitoring wells. The map shows the well number with “SHP” prefix removed for spacing purposes. Figure 3 well symbols indicate the aquifers in which these wells are completed. Tabular data are presented for each well for the previous ten years. Graphical data are presented for the entire period of record. Analyses of changes in the water level in the aquifer are complicated by unknown pumping schedules. The table below summarizes some observations gleaned from the data for each aquifer.

Aquifer	2016 Water Level Range (ft below ground)	Avg. Water Level Change 2016-2017 (ft)	Avg. Water Level Change 2012-2017 (ft)	Avg. Water Level Change 2007-2017 (ft)
Ogallala	87 to 247	1	-7	-19
Dakota/Cheyenne	58 to 315	0	-6	-11
Dockum	36 to 260	-2	-6	-10

Generally water levels in all aquifers throughout the basin are declining. However, ten wells show a trend where water levels are increasing over the past 15-70 years. Seven of the wells are completed in the Dakota/Cheyenne aquifer, two in the Dockum aquifer and one in the Ogallala aquifer. The wells are primarily located in the Southern portion of the Designated Basin near Campo, CO (Figure 3).

Copies of this report can be purchased from the Office of the State Engineer, Records Section, 1313 Sherman St., Room 821, Denver, CO 80203, (303) 866-3581.

An electronic copy of this report, in Adobe PDF format, is available on the Division of Water Resources website:

<http://water.state.co.us/groundwater/Levels/Pages/HydroGeo.aspx>.

Additionally, all groundwater level data may be accessed and exported using the tools available on the Colorado Decision Support System website:

<http://cdss.state.co.us/onlineTools/Pages/GroundWaterWaterLevels.aspx>

and the Colorado Information Marketplace HydroBase Bulk Data Exporter:

<https://data.colorado.gov/Information-Sharing/DWR-Well-Water-Level/hfwh-wsgi>

or the Colorado Decision Support System MapViewer

<http://water.state.co.us/DataMaps/GISandMaps/MapViewer/Pages/FAQ.aspx>

If you have any questions regarding groundwater and the information in this report, please contact the Groundwater Information Desk at (303) 866-3587.

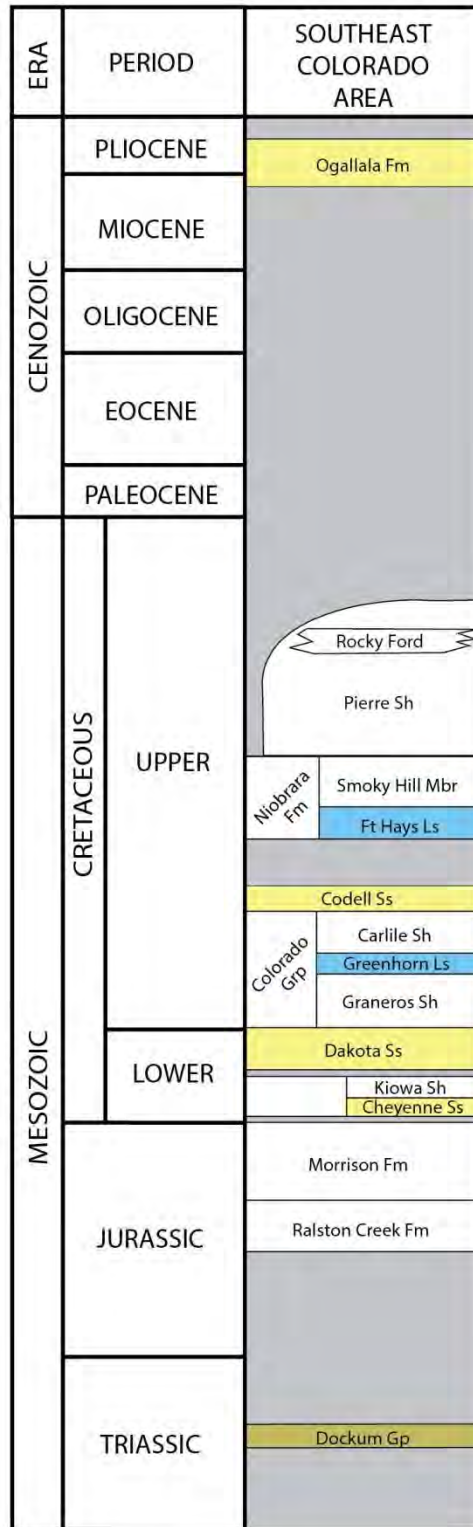
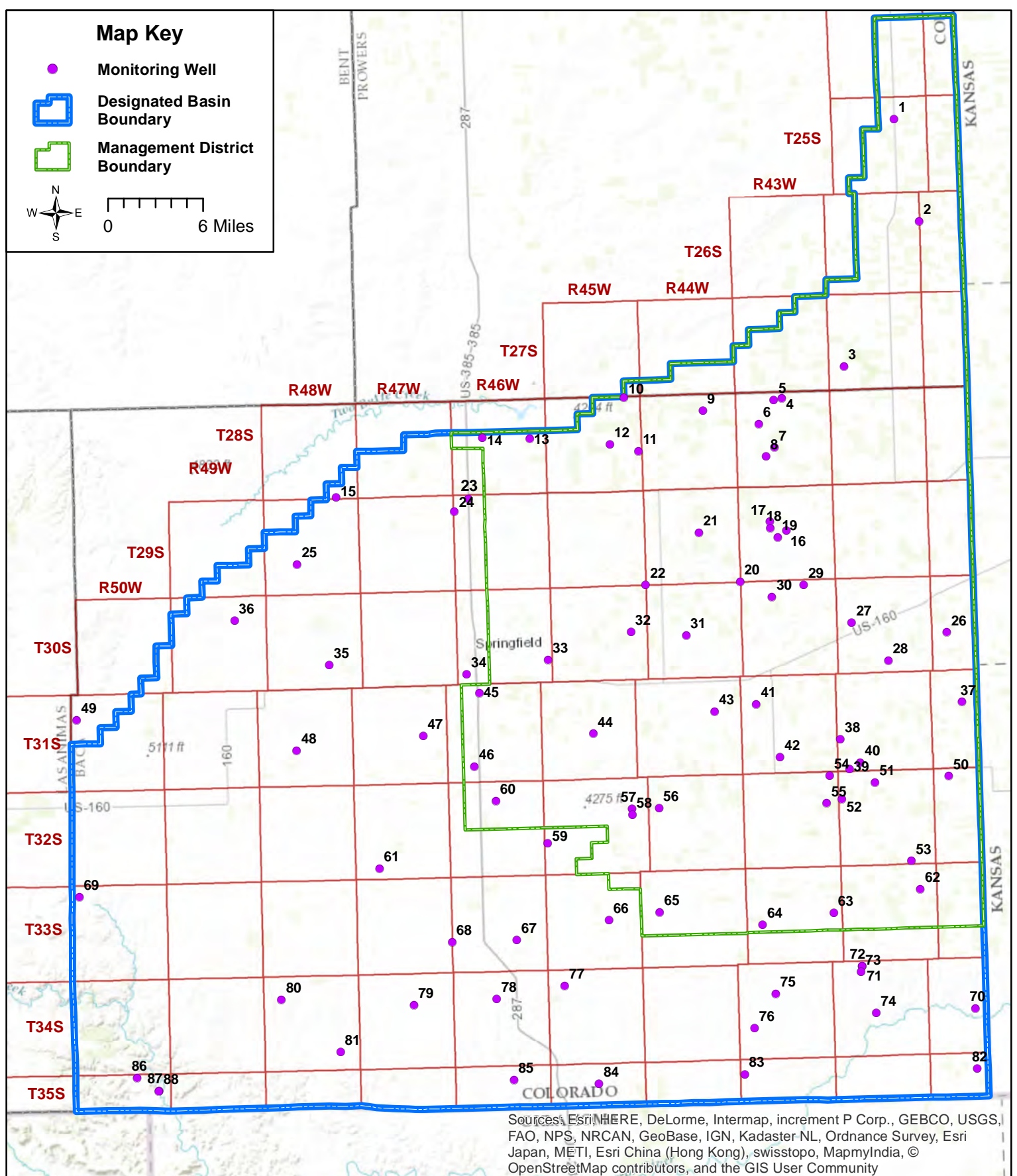
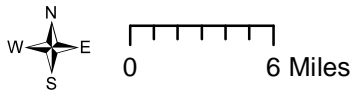


Figure 1 - Bedrock Aquifers of Southeast Colorado
 (yellow - sandstone dominated; blue-limestone dominated)

Map Key

- Monitoring Well
- Designated Basin Boundary
- Management District Boundary



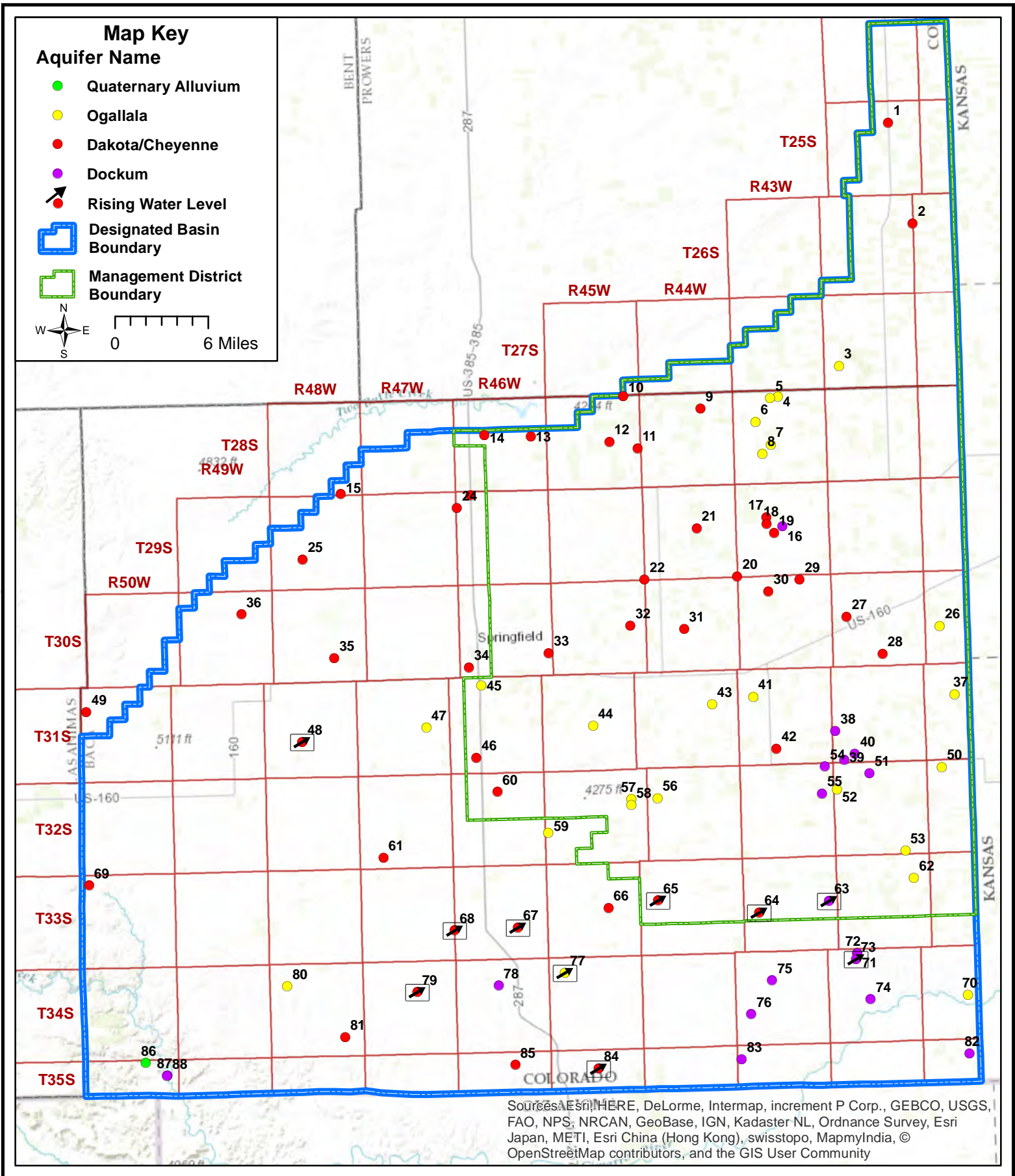
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Southern High Plains Designated Basin Monitoring Well Locations Figure 2

Date: 5/23/2017



Map Key

Groundwater Level Change

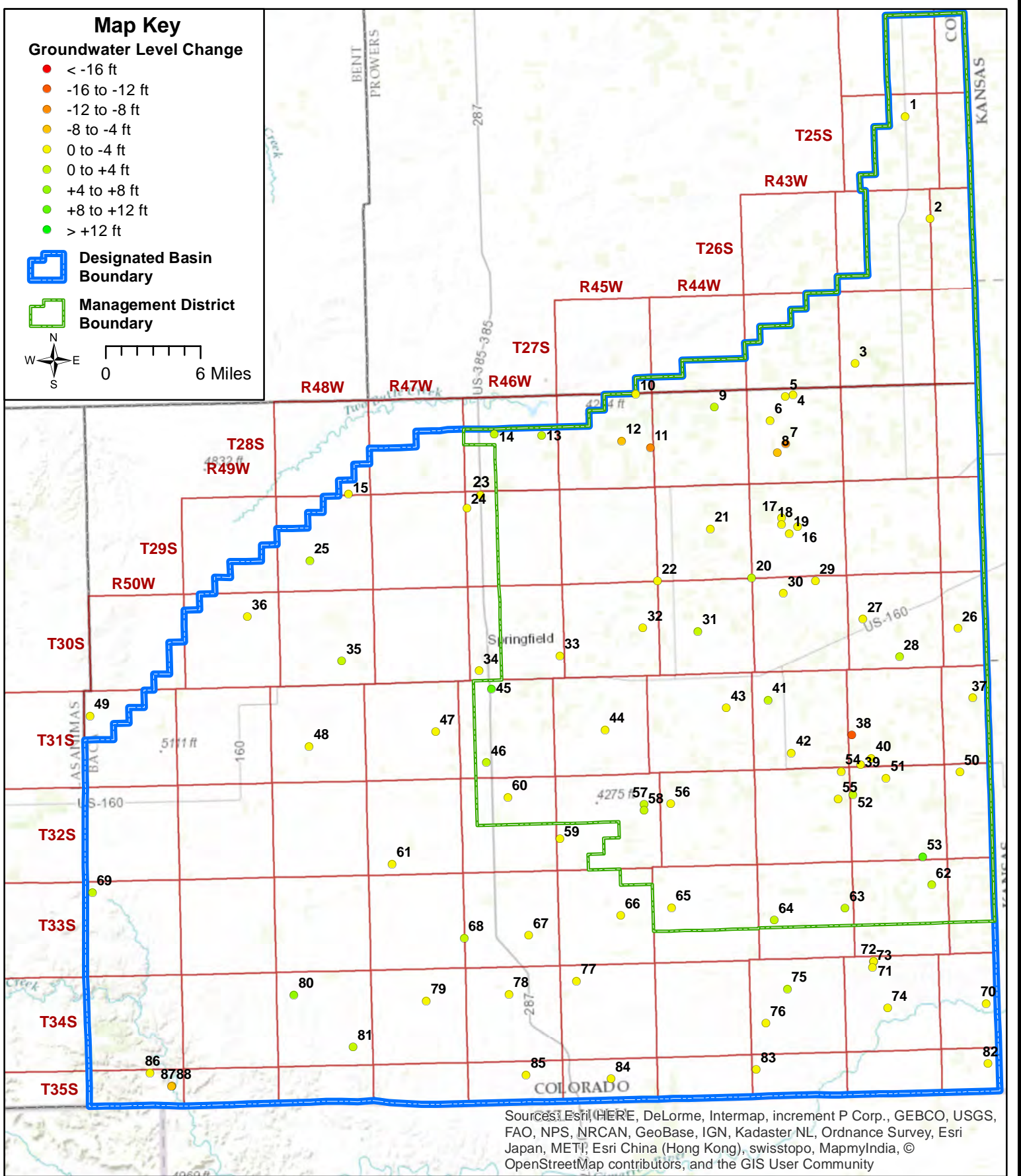
- < -16 ft
- -16 to -12 ft
- -12 to -8 ft
- -8 to -4 ft
- 0 to -4 ft
- 0 to +4 ft
- +4 to +8 ft
- +8 to +12 ft
- > +12 ft

 Designated Basin Boundary

 Management District Boundary



0 6 Miles



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Southern High Plains Designated Basin Water Level Trends 2016-2017

Figure 4

Date: 5/23/2017

Map Key

Groundwater Level Change

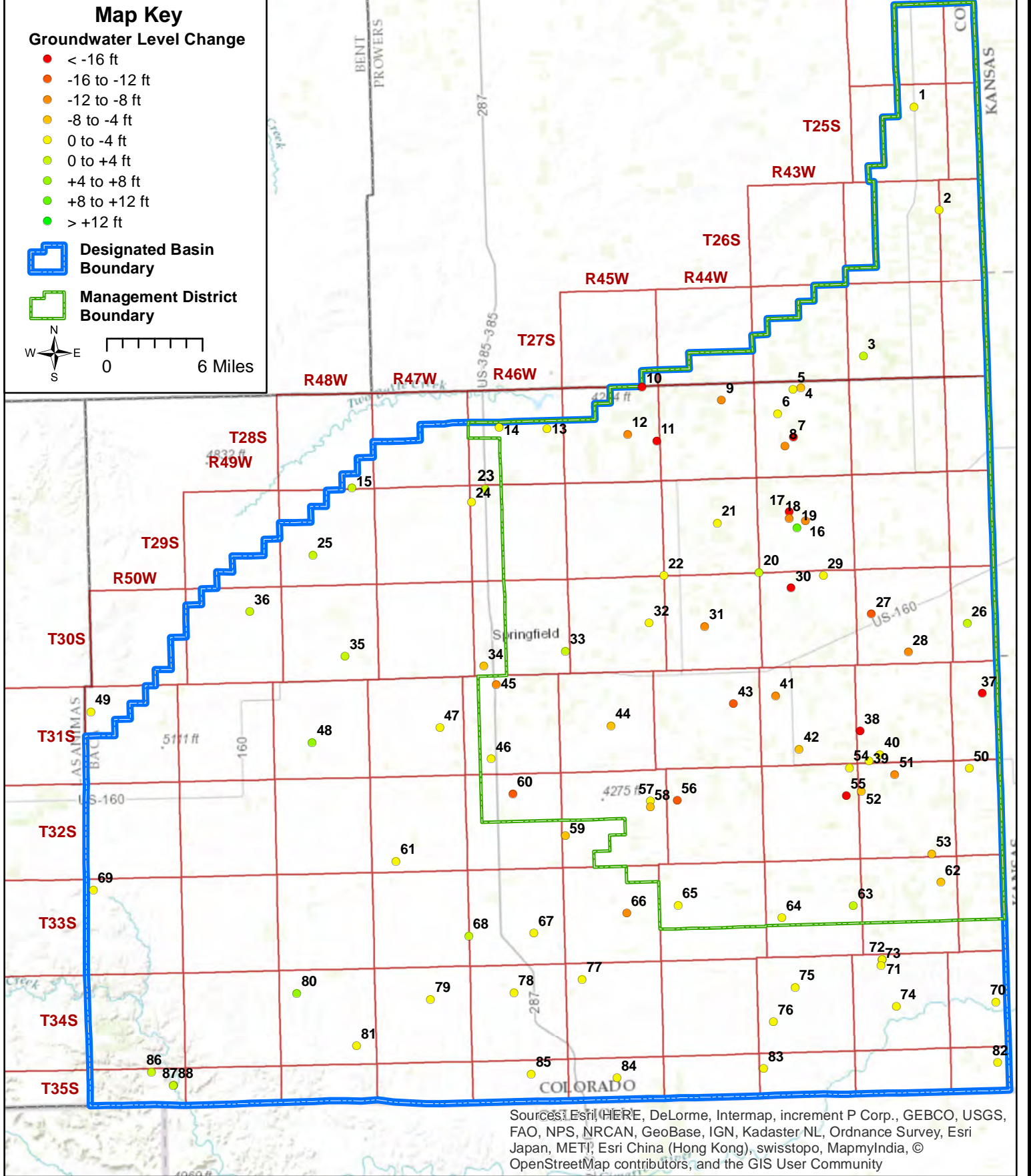
- < -16 ft
- -16 to -12 ft
- -12 to -8 ft
- -8 to -4 ft
- 0 to -4 ft
- 0 to +4 ft
- +4 to +8 ft
- +8 to +12 ft
- > +12 ft

 Designated Basin Boundary

 Management District Boundary



0 6 Miles



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Southern High Plains Designated Basin Water Level Trends 2012-2017 Figure 5

Date: 5/23/2017

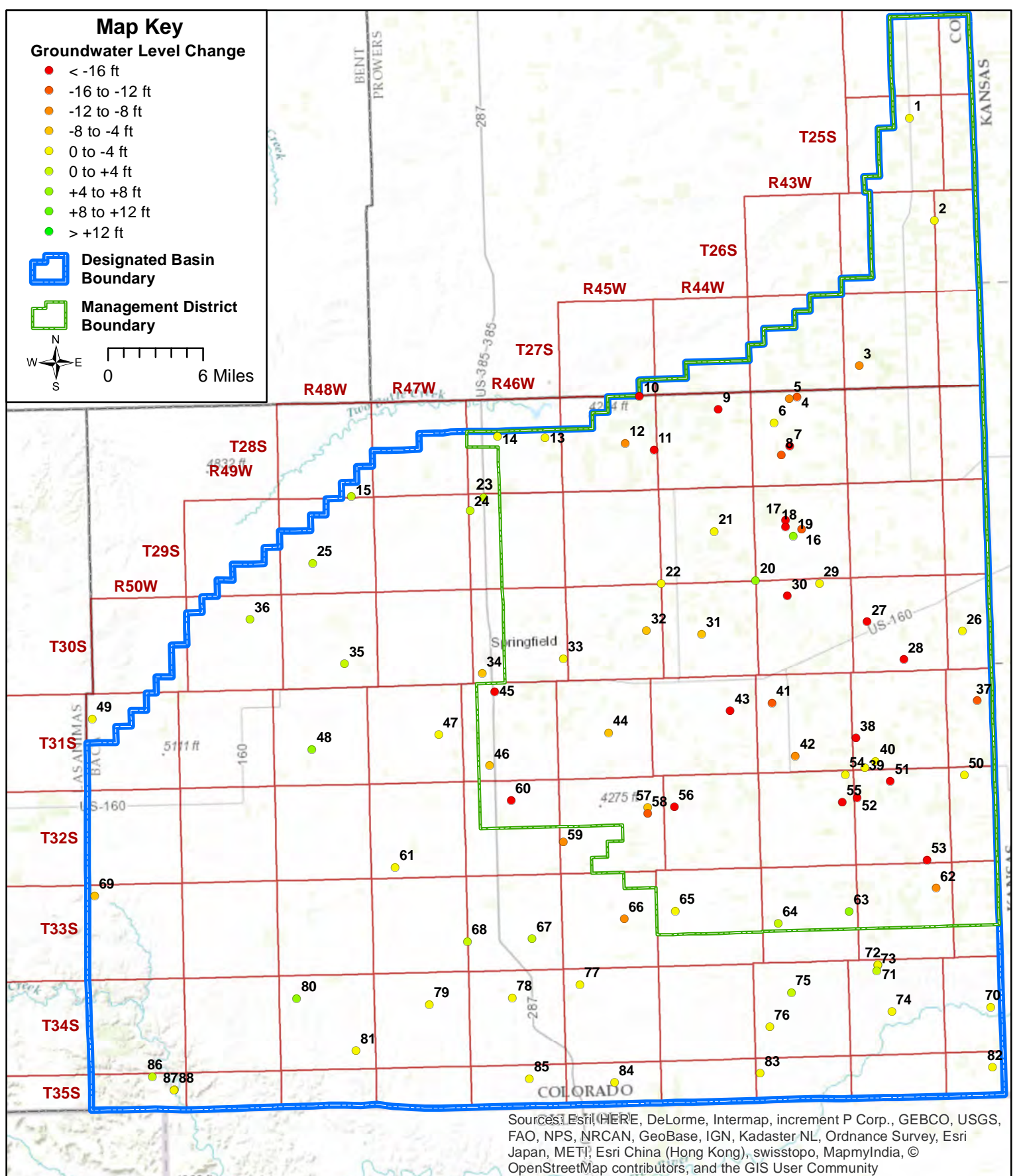
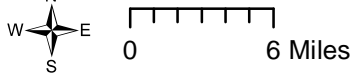
Map Key

Groundwater Level Change

- < -16 ft
- -16 to -12 ft
- -12 to -8 ft
- -8 to -4 ft
- 0 to -4 ft
- 0 to +4 ft
- +4 to +8 ft
- +8 to +12 ft
- > +12 ft

 Designated Basin Boundary

 Management District Boundary



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Southern High Plains Designated Basin Water Level Trends 2007-2017 Figure 6

Date: 5/23/2017

SOUTHERN HIGH PLAINS

Well Name: SHP-01 BLAKE, JERREL

Owner: BLAKE, JERREL

Permit #: 10437 - FP - **Location #:** SC02504211BC

USGS Site ID:

Division: 2 **Water District:** 67 **County:** PROWERS

Location: Q160 Q40 Q10 Section: NW SW 11 Twnshp: 25 S Range: 42 W S PM Distance from section lines:
From N/S line: From E/W line:

UTM Coordinates (NAD83): Northing (UTM y): 4197641.7 Easting (UTM x): 753591.9 GPS

Latitude/Longitude (decimal degrees): 37.890991 -102.116188

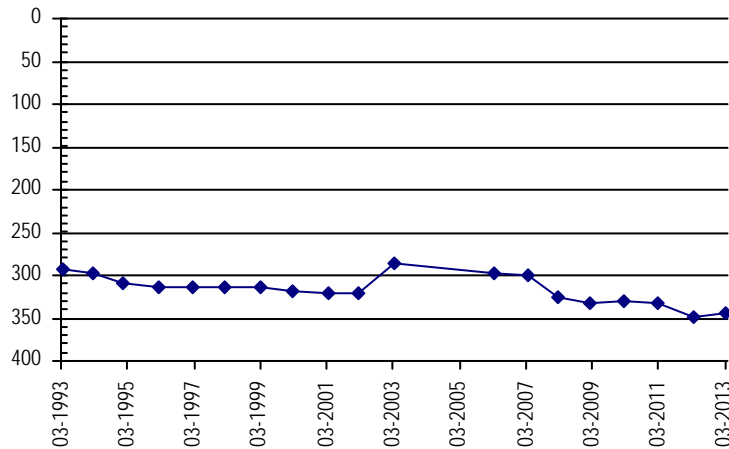
Surface Elevation (ft): 3659 **Top Perforated Interval (ft):** **Base of grout (ft):**
Well depth (ft): 600 **Bottom Perforated Interval (ft):**
Aquifer(s): DAKOTA

Water Level Change
1 year:
5 year:
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/31/2007	300.60	3358.40	-1.80
2/20/2008	326.10	3332.90	-25.50
2/9/2009	331.90	3327.10	-5.80
2/27/2010	330.00	3329.00	1.90
2/23/2011	333.00	3326.00	-3.00
3/6/2012	348.50	3310.50	-15.50
3/10/2013	345.30	3313.70	3.20
3/18/2014			
2/20/2015			
3/10/2016			
3/2/2017			

All Historic Measurements



Well Name: SHP-02 BARTH,RBT.J.

Owner: BARTH,RBT.J.

Permit #: 19211 - FP - **Location #:** SC02604107BC

USGS Site ID:

Division: 2 **Water District:** 67 **County:** PROWERS

Location: Q160 Q40 Q10 Section: NW SW 7 Twnshp: 26 S Range: 41 W S PM Distance from section lines:
From N/S line: From E/W line:

UTM Coordinates (NAD83): Northing (UTM y): 4187217.1 Easting (UTM x): 756121.8 GPS

Latitude/Longitude (decimal degrees): 37.796446 -102.091143

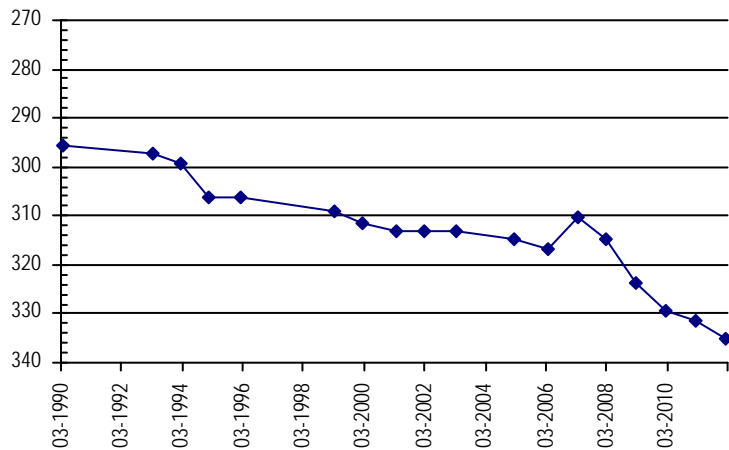
Surface Elevation (ft): 3655 **Top Perforated Interval (ft):** **Base of grout (ft):**
Well depth (ft): 630 **Bottom Perforated Interval (ft):**
Aquifer(s): DAKOTA
CHEYENNE

Water Level Change
1 year:
5 year:
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/30/2007	310.30	3344.70	6.60
2/20/2008	314.70	3340.30	-4.40
2/11/2009	323.80	3331.20	-9.10
2/27/2010	329.50	3325.50	-5.70
2/23/2011	331.40	3323.60	-1.90
2/8/2012	335.00	3320.00	-3.60
3/10/2013			
3/18/2014			
2/20/2015			
3/10/2016			
3/2/2017			

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-03 WEEKS RANCHES INC.** **Owner:** WEEKS RANCHES INC.
Permit #: 12269 - FP - **Location #:** SC02704229CBB **USGS Site ID:** 373957102105800

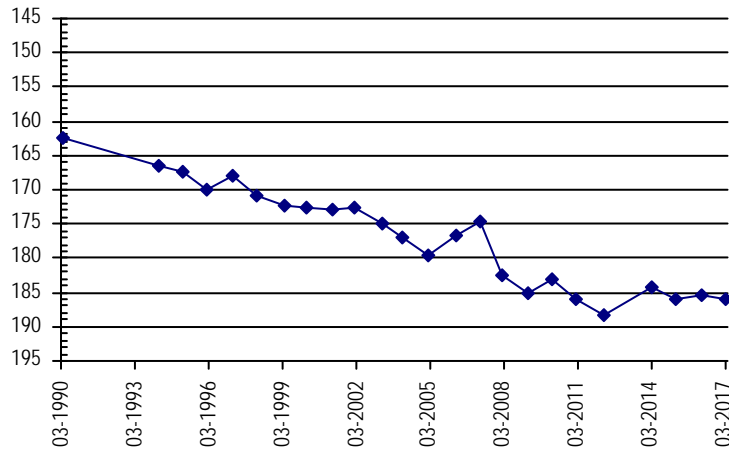
Division: 2 **Water District:** 67 **County:** PROWERS
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW NW NW 29 27 S 42 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4172442.0 **Easting (UTM x):** 748483.0 *GPS*
Latitude/Longitude (decimal degrees): 37.665544 -102.182849

Surface Elevation (ft): 3826.58 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 208 **Bottom Perforated Interval (ft):** **1 year:** -0.69
Aquifer(s): OGALLALA **5 year:** 2.20
10 year: -11.40

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/30/2007	174.70	3651.88	1.90
2/21/2008	182.40	3644.18	-7.70
2/11/2009	185.00	3641.58	-2.60
2/27/2010	183.00	3643.58	2.00
2/23/2011	186.00	3640.58	-3.00
3/6/2012	188.30	3638.28	-2.30
3/10/2013			
3/18/2014	184.33	3642.25	
2/20/2015	186.08	3640.50	-1.75
3/10/2016	185.41	3641.17	0.67
3/2/2017	186.10	3640.48	-0.69

All Historic Measurements



Well Name: **SHP-04 NUSSER,D.** **Owner:** NUSSER,D.
Permit #: 21218 - FP - **Location #:** SC02804304ADD1 **USGS Site ID:** 373816102152001

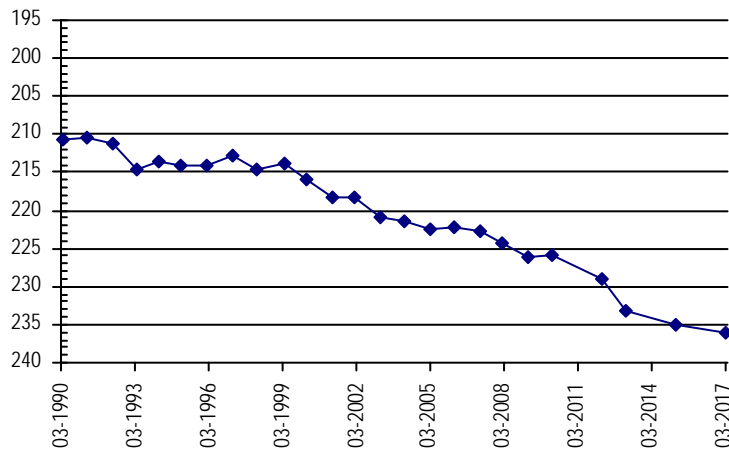
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE SE SE 4 28 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4169234.0 **Easting (UTM x):** 742122.0 *GPS*
Latitude/Longitude (decimal degrees): 37.638362 -102.255953

Surface Elevation (ft): 3936.65 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 292 **Bottom Perforated Interval (ft):** **1 year:** -7.14
Aquifer(s): OGALLALA **5 year:** -7.14
10 year: -13.34

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	222.80	3713.85	-0.60
2/4/2008	224.30	3712.35	-1.50
2/7/2009	226.20	3710.45	-1.90
2/18/2010	225.90	3710.75	0.30
4/13/2011			
2/8/2012	229.00	3707.65	
2/23/2013	233.10	3703.55	-4.10
3/18/2014			
2/20/2015	235.14	3701.51	
3/9/2016			
3/2/2017	236.14	3700.51	

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-05 SCHNABEL,D.L.

Owner: SCHNABEL,D.L.

Permit #: 15639 - FP - **Location #:** SC02804304CA

USGS Site ID:

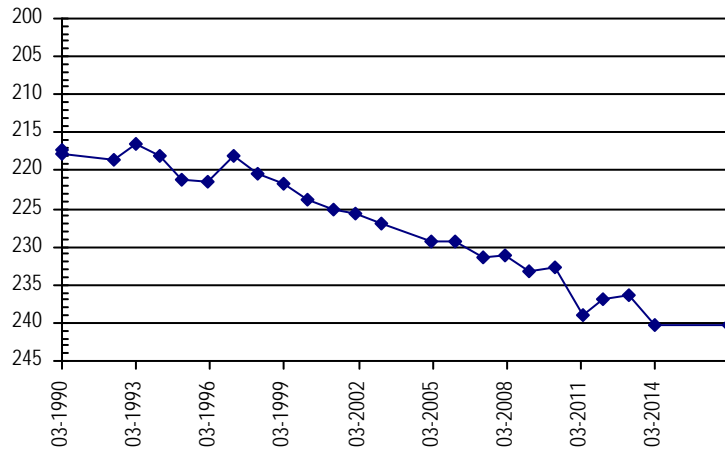
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW NE 4 28 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4169041.4 Easting (UTM x): 741337.5 GPS
Latitude/Longitude (decimal degrees): 37.636835 -102.264898

Surface Elevation (ft): 3950 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 272 **Bottom Perforated Interval (ft):** **1 year:**
Aquifer(s): OGALLALA **5 year:** -3.25
10 year: -8.85

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	231.40	3718.60	-2.20
2/4/2008	231.20	3718.80	0.20
2/6/2009	233.30	3716.70	-2.10
2/18/2010	232.80	3717.20	0.50
4/14/2011	239.00	3711.00	-6.20
2/8/2012	237.00	3713.00	2.00
2/23/2013	236.30	3713.70	0.70
3/18/2014	240.39	3709.61	-4.09
2/20/2015			
3/9/2016			
3/2/2017	240.25	3709.75	

All Historic Measurements



Well Name: SHP-06 MEYERS, S.

Owner: MEYERS, S.

Permit #: 9222 - FP - **Location #:** SC02804308BA

USGS Site ID:

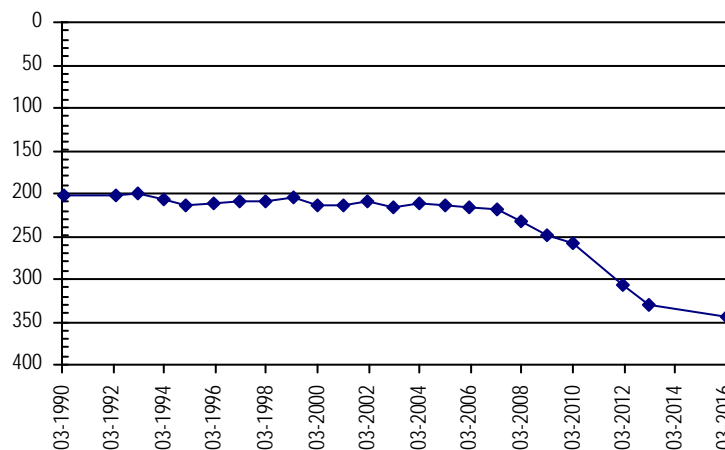
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW NE 8 28 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4166605.0 Easting (UTM x): 739792.0 GPS
Latitude/Longitude (decimal degrees): 37.615304 -102.283195

Surface Elevation (ft): 3974 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 510 **Bottom Perforated Interval (ft):** **1 year:**
Aquifer(s): OGALLALA **5 year:**
 DAKOTA **10 year:**

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/21/2007	217.70	3756.30	-1.00
2/3/2008	233.50	3740.50	-15.80
2/3/2009	247.80	3726.20	-14.30
2/14/2010	258.20	3715.80	-10.40
4/13/2011			
2/18/2012	306.20	3667.80	
2/18/2013	329.50	3644.50	-23.30
3/3/2014			
2/20/2015			
3/9/2016	344.66	3629.34	
3/2/2017			

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-07 GRIFFIN,L.& OTHERS**

Owner: GRIFFIN,L.& OTHERS

Permit #: 6081 - FP - **Location #:** SC02804321BDD

USGS Site ID:

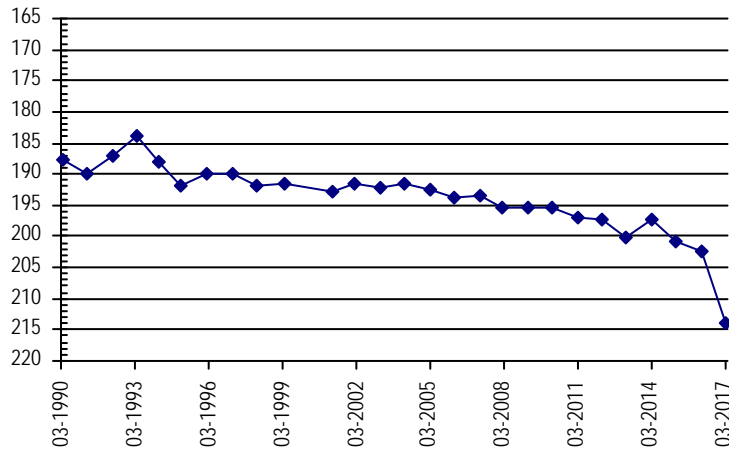
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SE SE 21 28 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4164223.6 **Easting (UTM x):** 741391.2 *GPS*
Latitude/Longitude (decimal degrees): 37.593445 -102.265880

Surface Elevation (ft): 3960 **Top Perforated Interval (ft):** 156 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 242 **Bottom Perforated Interval (ft):** 227 **1 year:** -11.81
Aquifer(s): OGALLALA **5 year:** -16.88
 DAKOTA **10 year:** -20.78

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	193.30	3766.70	0.50
2/4/2008	195.50	3764.50	-2.20
2/4/2009	195.50	3764.50	0.00
2/14/2010	195.50	3764.50	0.00
3/22/2011	197.00	3763.00	-1.50
2/18/2012	197.20	3762.80	-0.20
2/24/2013	200.10	3759.90	-2.90
3/18/2014	197.19	3762.81	2.91
2/20/2015	200.88	3759.12	-3.69
3/9/2016	202.27	3757.73	-1.39
3/2/2017	214.08	3745.92	-11.81

All Historic Measurements



Well Name: **SHP-08 COGBURN,A.**

Owner: COGBURN,A.

Permit #: 6190 - F - **Location #:** SC02804329AAA

USGS Site ID:

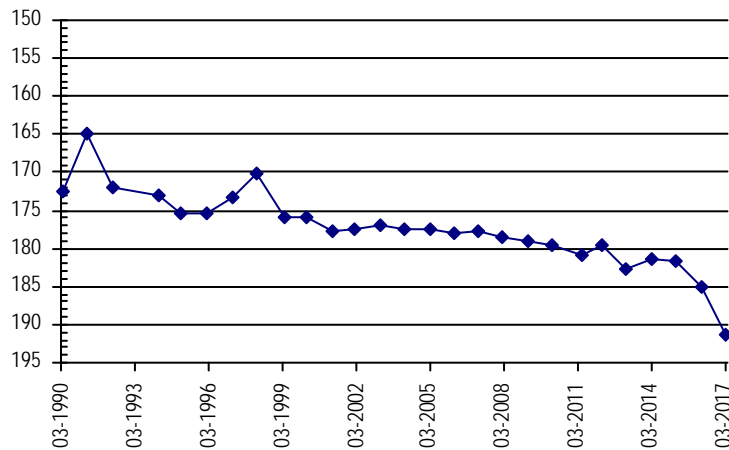
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE NE NE 29 28 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4163308.9 **Easting (UTM x):** 740540.2 *GPS*
Latitude/Longitude (decimal degrees): 37.585433 -102.275810

Surface Elevation (ft): 3940 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 210 **Bottom Perforated Interval (ft):** **1 year:** -6.16
Aquifer(s): OGALLALA **5 year:** -11.80
 DAKOTA **10 year:** -13.60

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
2/23/2007	177.70	3762.30	0.40
2/4/2008	178.40	3761.60	-0.70
2/7/2009	179.00	3761.00	-0.60
2/18/2010	179.50	3760.50	-0.50
4/13/2011	180.80	3759.20	-1.30
2/8/2012	179.50	3760.50	1.30
2/25/2013	182.60	3757.40	-3.10
3/21/2014	181.33	3758.67	1.27
2/20/2015	181.60	3758.40	-0.27
3/9/2016	185.14	3754.86	-3.54
3/2/2017	191.30	3748.70	-6.16

All Historic Measurements



SOUTHERN HIGH PLAINS

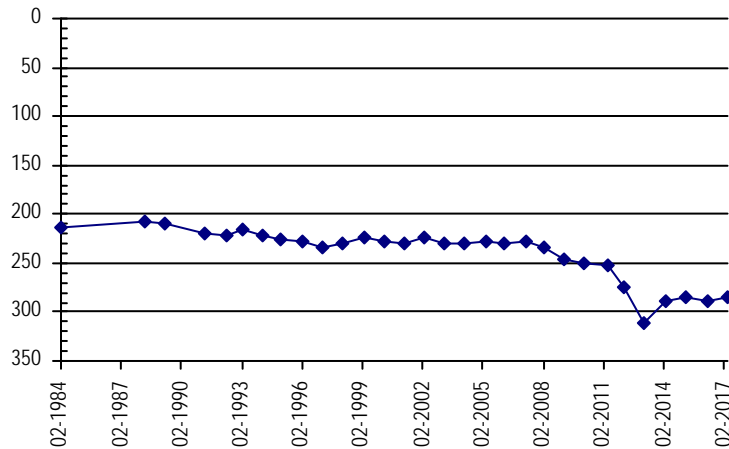
Well Name:	SHP-09 COGBURN, B.	<i>Owner:</i>	COGBURN, B.
<i>Permit #:</i>	6183 - FP -	<i>Location #:</i>	SC02804410AAA
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
<i>County:</i>	BACA		
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NE NE NE 10	28 S 44 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4167972.4	<i>Easting (UTM x):</i> 734114.4 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>	37.629079 -102.347019		
<i>Surface Elevation (ft):</i>	4057	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	417	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	CHEYENNE		

Water Level Change
1 year: 2.55
5 year: -10.42
10 year: -57.22

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/21/2007	228.60	3828.40	1.00
2/3/2008	234.60	3822.40	-6.00
2/3/2009	245.80	3811.20	-11.20
2/14/2010	249.90	3807.10	-4.10
4/13/2011	253.00	3804.00	-3.10
2/18/2012	275.40	3781.60	-22.40
2/23/2013	311.10	3745.90	-35.70
3/18/2014	289.10	3767.90	22.00
2/20/2015	284.69	3772.31	4.41
3/9/2016	288.37	3768.63	-3.68
3/2/2017	285.82	3771.18	2.55

All Historic Measurements



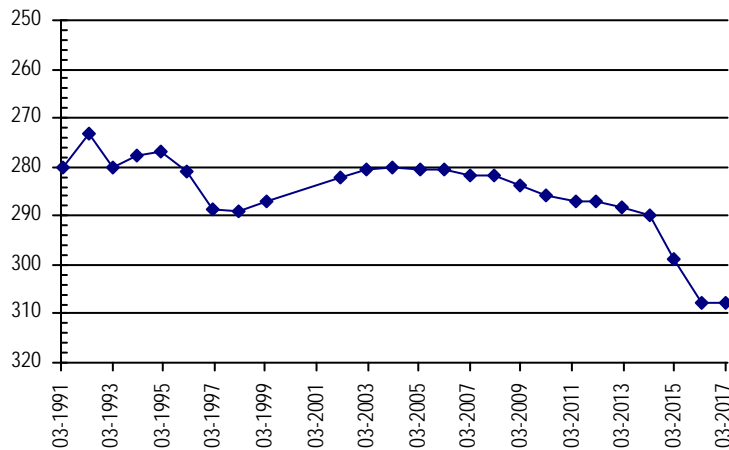
Well Name:	SHP-10 BELIN, OSCAR & ALTA	<i>Owner:</i>	BELIN, OSCAR & ALTA
<i>Permit #:</i>	5498 - FP -	<i>Location #:</i>	SC02804501BB
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
<i>County:</i>	BACA		
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NW NW 1	28 S 45 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4169281.0	<i>Easting (UTM x):</i> 726084.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>	37.642872 -102.437530		
<i>Surface Elevation (ft):</i>	4185	<i>Top Perforated Interval (ft):</i>	207
<i>Well depth (ft):</i>	407	<i>Bottom Perforated Interval (ft):</i>	407
<i>Aquifer(s):</i>	DAKOTA DOCKUM		

Water Level Change
1 year: -0.12
5 year: -20.74
10 year: -26.14

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	281.80	3903.20	-1.20
2/3/2008	281.80	3903.20	0.00
2/7/2009	283.90	3901.10	-2.10
2/14/2010	285.70	3899.30	-1.80
4/12/2011	287.00	3898.00	-1.30
2/18/2012	287.20	3897.80	-0.20
2/23/2013	288.10	3896.90	-0.90
3/18/2014	289.79	3895.21	-1.69
2/20/2015	298.72	3886.28	-8.93
3/9/2016	307.82	3877.18	-9.10
3/1/2017	307.94	3877.06	-0.12

All Historic Measurements



SOUTHERN HIGH PLAINS

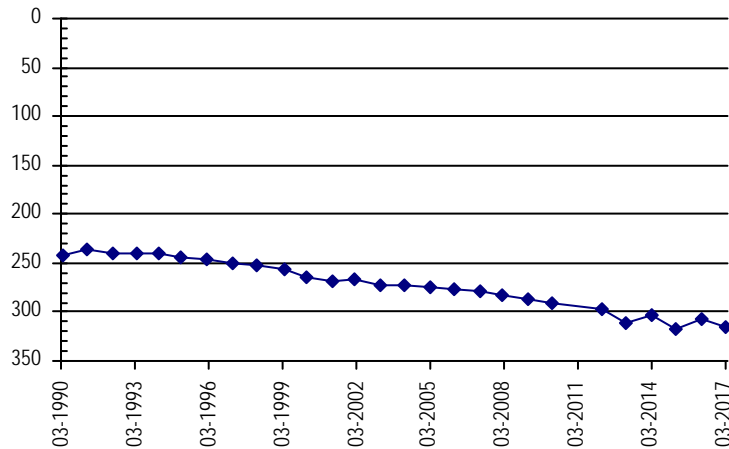
Well Name:	SHP-11 AUSMUS,G,& S. 1	<i>Owner:</i>	AUSMUS,G,& S.
<i>Permit #:</i>	9350 - FP -	<i>Location #:</i>	SC02804514ADC
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NE SE SW 14	28 S 45 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4163814.8	<i>Easting (UTM x):</i> 727567.5 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>	37.593286		-102.422432
<i>Surface Elevation (ft):</i>	4150	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	430	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	DAKOTA		
	CHEYENNE		

Water Level Change
1 year: -8.50
5 year: -17.54
10 year: -35.64

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	279.50	3870.50	-3.10
2/3/2008	282.30	3867.70	-2.80
2/3/2009	287.50	3862.50	-5.20
2/14/2010	290.50	3859.50	-3.00
4/13/2011			
2/18/2012	297.60	3852.40	
2/23/2013	312.10	3837.90	-14.50
3/18/2014	304.10	3845.90	8.00
2/20/2015	317.08	3832.92	-12.98
3/9/2016	306.64	3843.36	10.44
3/1/2017	315.14	3834.86	-8.50

All Historic Measurements



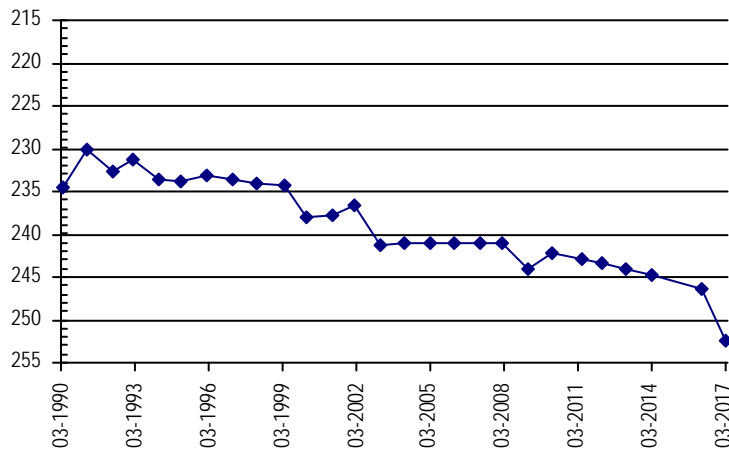
Well Name:	SHP-12 AUSMUS,G,& S. 2	<i>Owner:</i>	AUSMUS,G,& S.
<i>Permit #:</i>	5259 - FP -	<i>Location #:</i>	SC02804514CCC
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	SW SW SW 14	28 S 45 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4164534.9	<i>Easting (UTM x):</i> 724639.1 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>	37.600490		-102.455350
<i>Surface Elevation (ft):</i>	4205	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	450	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	CHEYENNE		

Water Level Change
1 year: -5.84
5 year: -9.04
10 year: -11.24

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	241.10	3963.90	-0.10
2/3/2008	241.10	3963.90	0.00
2/3/2009	244.00	3961.00	-2.90
2/14/2010	242.10	3962.90	1.90
4/13/2011	242.90	3962.10	-0.80
2/18/2012	243.30	3961.70	-0.40
2/23/2013	244.10	3960.90	-0.80
3/18/2014	244.87	3960.13	-0.77
2/20/2015			
3/9/2016	246.50	3958.50	
3/1/2017	252.34	3952.66	-5.84

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-13 KITZMILLER,K.& M.** **Owner:** KITZMILLER,K & M.
Permit #: 10080 - FP - **Location #:** SC02804613BCC **USGS Site ID:** 373626102324700

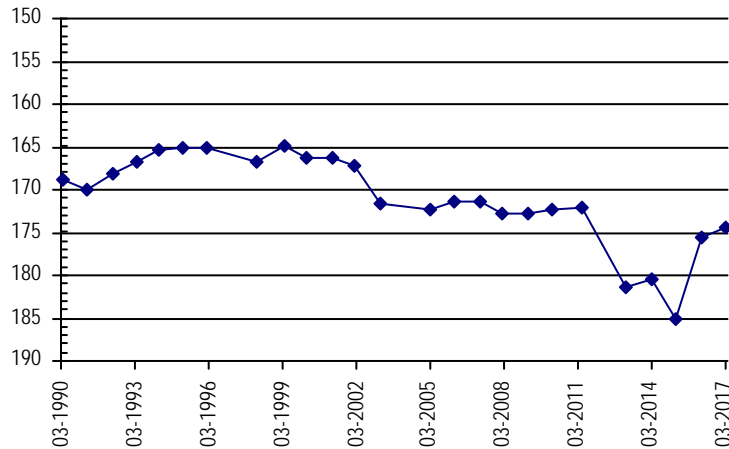
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW SW 13 28 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4165090.0 **Easting (UTM x):** 716484.0 *GPS*
Latitude/Longitude (decimal degrees): 37.607444 -102.547485

Surface Elevation (ft): 4311.96 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 253 **Bottom Perforated Interval (ft):** **1 year:** 1.15
Aquifer(s): CHEYENNE **5 year:**
10 year: -3.15

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	171.30	4140.66	0.10
2/3/2008	172.70	4139.26	-1.40
2/3/2009	172.90	4139.06	-0.20
2/14/2010	172.30	4139.66	0.60
4/13/2011	172.10	4139.86	0.20
2/18/2012			
2/16/2013	181.30	4130.66	
3/18/2014	180.40	4131.56	0.90
2/19/2015	185.19	4126.77	-4.79
3/9/2016	175.60	4136.36	9.59
3/1/2017	174.45	4137.51	1.15

All Historic Measurements



Well Name: **SHP-14 KITZMILLER,MARY F.** **Owner:** KITZMILLER,MARY F.
Permit #: 9444 - FP - **Location #:** SC02804616BCB **USGS Site ID:**

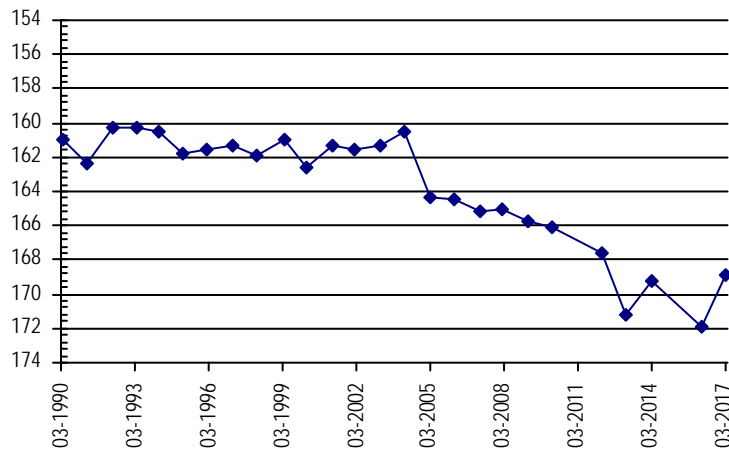
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW NW 16 28 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4165227.2 **Easting (UTM x):** 711662.1 *GPS*
Latitude/Longitude (decimal degrees): 37.609802 -102.602028

Surface Elevation (ft): 4385 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 210 **Bottom Perforated Interval (ft):** **1 year:** 3.02
Aquifer(s): DAKOTA **5 year:** -1.27
10 year: -3.67

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	165.20	4219.80	-0.70
2/3/2008	165.00	4220.00	0.20
2/3/2009	165.70	4219.30	-0.70
2/14/2010	166.10	4218.90	-0.40
4/12/2011			
2/18/2012	167.60	4217.40	
2/17/2013	171.20	4213.80	-3.60
3/18/2014	169.29	4215.71	1.91
2/19/2015			
3/9/2016	171.89	4213.11	
3/1/2017	168.87	4216.13	3.02

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-17 COMMERCE RANCH 2** **Owner:** COMMERCE RANCH
Permit #: 18427 - RFP - **Location #:** SC02904316BB **USGS Site ID:**

Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW NW 16 29 S 43 W S **From N/S line:** **From E/W line:**

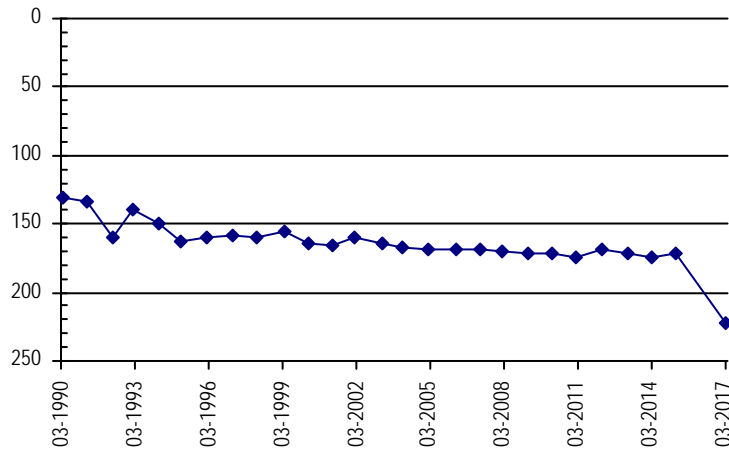
UTM Coordinates (NAD83): **Northing (UTM y):** 4156665.3 **Easting (UTM x):** 740942.8 *GPS*
Latitude/Longitude (decimal degrees): 37.525513 -102.273437

Surface Elevation (ft): 3939 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 411 **Bottom Perforated Interval (ft):** **1 year:**
Aquifer(s): DAKOTA **5 year:** -54.57
 CHEYENNE **10 year:** -53.57

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/31/2007	169.00	3770.00	-0.20
2/19/2008	170.70	3768.30	-1.70
2/11/2009	171.50	3767.50	-0.80
2/26/2010	172.00	3767.00	-0.50
2/23/2011	174.10	3764.90	-2.10
2/8/2012	168.00	3771.00	6.10
3/2/2013	171.10	3767.90	-3.10
3/20/2014	174.69	3764.31	-3.59
2/20/2015	171.66	3767.34	3.03
3/10/2016			
3/2/2017	222.57	3716.43	

All Historic Measurements



Well Name: **SHP-18 COMMERCE RANCH 3** **Owner:** COMMERCE RANCH
Permit #: 18427 - SFP - **Location #:** SC02904316CBB **USGS Site ID:**

Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW NW NW 16 29 S 43 W S **From N/S line:** 1914 S **From E/W line:** 112 W

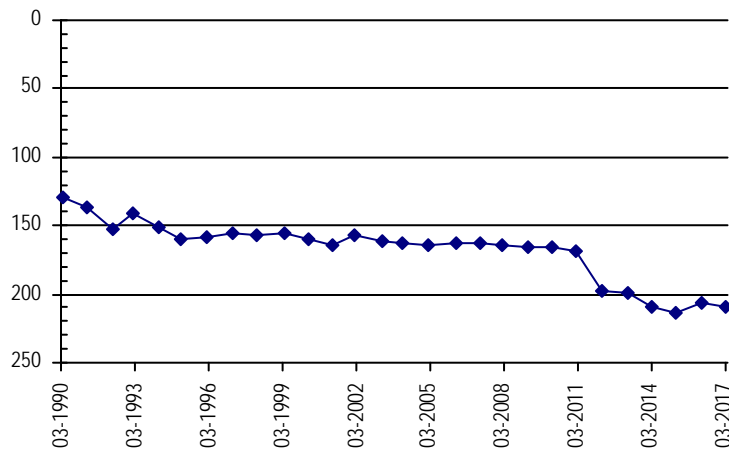
UTM Coordinates (NAD83): **Northing (UTM y):** 4156029.1 **Easting (UTM x):** 740959.7 *GPS*
Latitude/Longitude (decimal degrees): 37.519780 -102.273454

Surface Elevation (ft): 3936 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 465 **Bottom Perforated Interval (ft):** **1 year:** -3.17
Aquifer(s): DAKOTA **5 year:** -11.57
 CHEYENNE **10 year:** -46.27

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/31/2007	163.30	3772.70	-0.20
2/19/2008	164.80	3771.20	-1.50
2/13/2009	165.50	3770.50	-0.70
2/26/2010	165.80	3770.20	-0.30
2/21/2011	168.80	3767.20	-3.00
2/8/2012	198.00	3738.00	-29.20
3/8/2013	199.10	3736.90	-1.10
3/20/2014	208.66	3727.34	-9.56
2/20/2015	214.10	3721.90	-5.44
3/10/2016	206.40	3729.60	7.70
3/2/2017	209.57	3726.43	-3.17

All Historic Measurements



SOUTHERN HIGH PLAINS

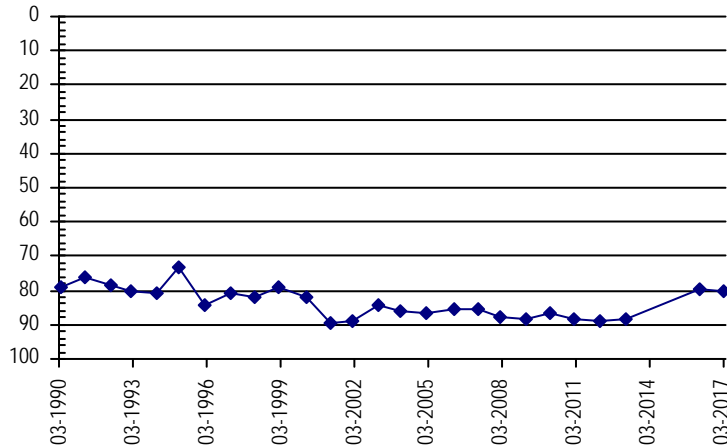
Well Name:	SHP-19 COMMERCE RANCH 4	<i>Owner:</i>	COMMERCE RANCH
<i>Permit #:</i>	67883 - -	<i>Location #:</i>	SC02904321BAD
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NW NE SE 21	29 S 43 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4155067.0	<i>Easting (UTM x):</i> 741741.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>		37.510914	-102.264939
<i>Surface Elevation (ft):</i>	3915	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	400	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	DAKOTA		
	CHEYENNE		

Water Level Change
1 year: -0.59
5 year: 8.80
10 year: 5.10

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/31/2007	85.40	3829.60	0.00
2/19/2008	88.00	3827.00	-2.60
2/11/2009	88.30	3826.70	-0.30
2/26/2010	86.60	3828.40	1.70
2/22/2011	88.30	3826.70	-1.70
2/18/2012	89.10	3825.90	-0.80
3/2/2013	88.40	3826.60	0.70
3/20/2014			
2/20/2015			
3/10/2016	79.71	3835.29	
3/2/2017	80.30	3834.70	-0.59

All Historic Measurements



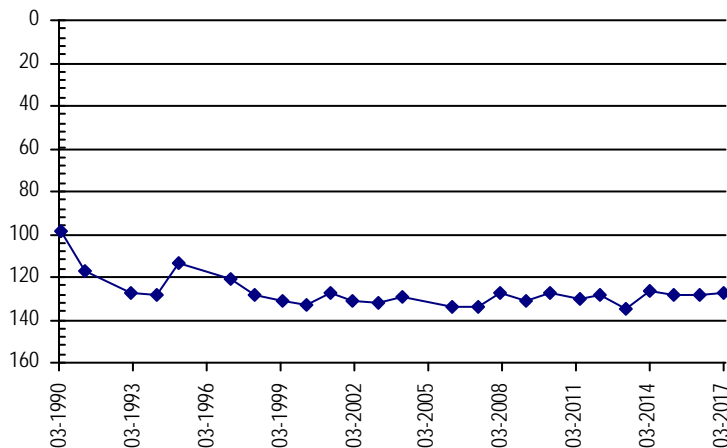
Well Name:	SHP-20 THOMPSON,H.J.	<i>Owner:</i>	THOMPSON,H.J.
<i>Permit #:</i>	12273 - R -	<i>Location #:</i>	SC02904331CCC
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	SW SW SW 31	29 S 43 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4150522.9	<i>Easting (UTM x):</i> 737906.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>		37.470996	-102.309753
<i>Surface Elevation (ft):</i>	3964	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	416	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	DAKOTA		
	CHEYENNE		

Water Level Change
1 year: 0.99
5 year: 0.89
10 year: 6.39

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	133.60	3830.40	0.10
2/4/2008	127.70	3836.30	5.90
2/7/2009	131.40	3832.60	-3.70
2/20/2010	127.70	3836.30	3.70
4/12/2011	129.90	3834.10	-2.20
2/18/2012	128.10	3835.90	1.80
3/2/2013	135.20	3828.80	-7.10
3/20/2014	126.15	3837.85	9.05
2/19/2015	128.54	3835.46	-2.39
3/10/2016	128.20	3835.80	0.34
3/2/2017	127.21	3836.79	0.99

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-21 SC02904415C

Owner:

Permit #: 10133 - FP - Location #: SC02904415CD USGS Site ID:

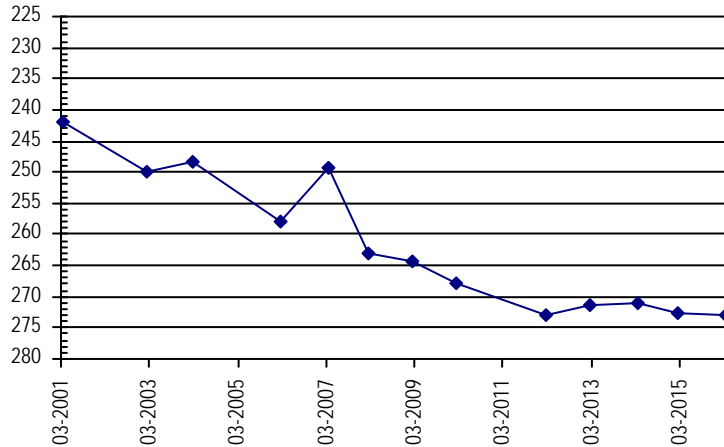
Division: 2 Water District: 67 County: BACA
 Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SE 15 29 S 44 W S From N/S line: From E/W line:
 UTM Coordinates (NAD83): Northing (UTM y): 4155531.0 Easting (UTM x): 733706.2 GPS
 Latitude/Longitude (decimal degrees): 37.517161 -102.355607

Surface Elevation (ft): 4045 Top Perforated Interval (ft): Base of grout (ft): **Water Level Change**
 Well depth (ft): 385 Bottom Perforated Interval (ft): **1 year:**
 Aquifer(s): DAKOTA **5 year:**
 CHEYENNE **10 year:**

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	249.30	3795.70	8.70
2/4/2008	263.00	3782.00	-13.70
2/6/2009	264.30	3780.70	-1.30
2/20/2010	267.80	3777.20	-3.50
4/12/2011			
2/18/2012	273.10	3771.90	
2/24/2013			
2/25/2013	271.30	3773.70	
3/20/2014	271.01	3773.99	0.29
2/20/2015	272.74	3772.26	-1.73
3/10/2016	273.08	3771.92	-0.34
3/1/2017			

All Historic Measurements



Well Name: SHP-22 DUNN-RED

Owner: DUNN-RED

Permit #: 10173 - F - Location #: SC02904431CC USGS Site ID:

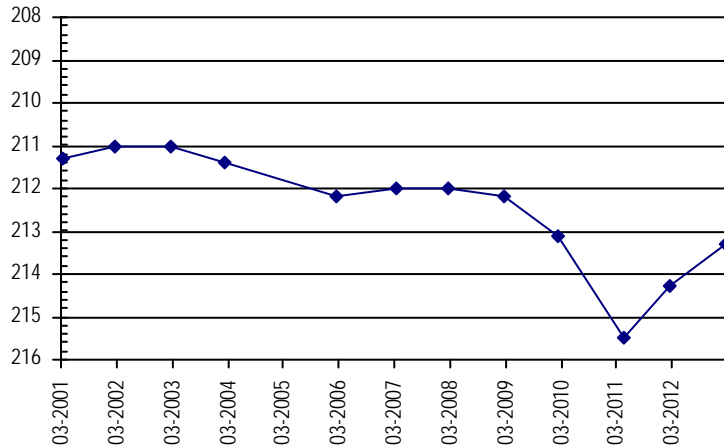
Division: 2 Water District: 67 County: BACA
 Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SW 31 29 S 44 W S From N/S line: 20 S From E/W line: 2500 E
 UTM Coordinates (NAD83): Northing (UTM y): 4150245.8 Easting (UTM x): 728293.5 GPS
 Latitude/Longitude (decimal degrees): 37.470926 -102.418434

Surface Elevation (ft): 4093 Top Perforated Interval (ft): Base of grout (ft): **Water Level Change**
 Well depth (ft): 220 Bottom Perforated Interval (ft): **1 year:**
 Aquifer(s): DAKOTA **5 year:**
 ALL UNNAMED AQUIFERS **10 year:**

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/24/2007	212.00	3881.00	0.20
2/4/2008	212.00	3881.00	0.00
2/6/2009	212.20	3880.80	-0.20
2/20/2010	213.10	3879.90	-0.90
4/19/2011	215.50	3877.50	-2.40
2/18/2012	214.30	3878.70	1.20
2/24/2013	213.30	3879.70	1.00

All Historic Measurements



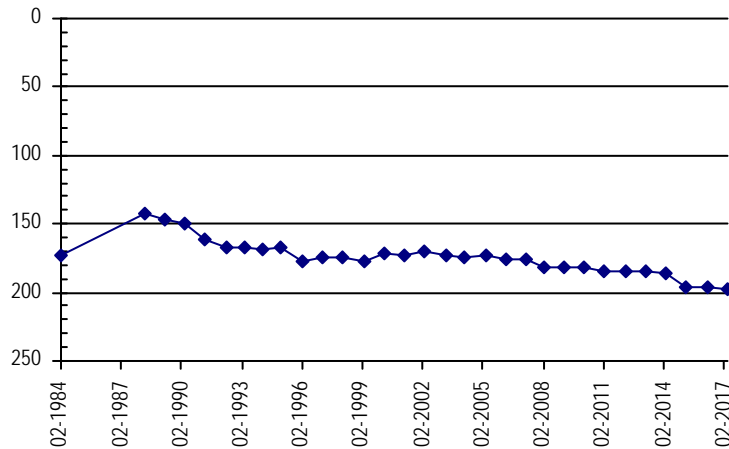
SOUTHERN HIGH PLAINS

Well Name: **SHP-27 SPIRITUAL SC. CHURCH** **Owner:** SPIRITUAL SC. CHURCH
Permit #: 3351 - F - **Location #:** SC03004217DD **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE SE 17 30 S 42 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4146369.0 **Easting (UTM x):** 749275.0 **GPS**
Latitude/Longitude (decimal degrees):
Surface Elevation (ft): 3830 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 393 **Bottom Perforated Interval (ft):** **1 year:** -0.92
Aquifer(s): DAKOTA **5 year:** -12.79
 CHEYENNE **10 year:** -22.19

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/31/2007	175.30	3654.70	0.50
2/20/2008	181.00	3649.00	-5.70
2/11/2009	181.50	3648.50	-0.50
2/26/2010	182.30	3647.70	-0.80
2/20/2011	184.00	3646.00	-1.70
3/1/2012	184.70	3645.30	-0.70
3/2/2013	184.50	3645.50	0.20
3/20/2014	185.52	3644.48	-1.02
2/19/2015	196.25	3633.75	-10.73
3/8/2016	196.57	3633.43	-0.32
3/1/2017	197.49	3632.51	-0.92

All Historic Measurements

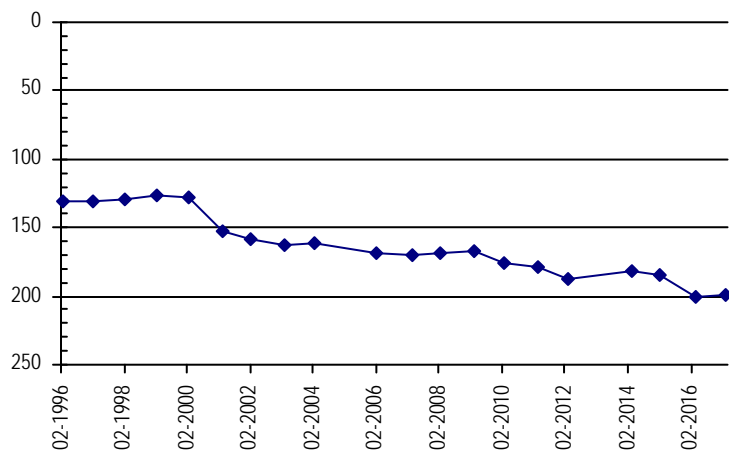


Well Name: **SHP-28 HUME, ROD** **Owner:** HUME, ROD
Permit #: 19206 - FP - **Location #:** SC03004234BC **USGS Site ID:**
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW 34 30 S 42 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4142489.1 **Easting (UTM x):** 753003.0 **GPS**
Latitude/Longitude (decimal degrees): 37.394663 -102.141978
Surface Elevation (ft): 3780 **Top Perforated Interval (ft):** 222 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 540 **Bottom Perforated Interval (ft):** 540 **1 year:** 0.99
Aquifer(s): CHEYENNE **5 year:** -11.76
 DOCKUM **10 year:** -28.56

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/21/2007	170.70	3609.30	-1.70
2/23/2008	168.30	3611.70	2.40
3/8/2009	167.50	3612.50	0.80
2/28/2010	176.50	3603.50	-9.00
3/6/2011	178.50	3601.50	-2.00
3/9/2012	187.50	3592.50	-9.00
3/1/2013			
3/20/2014	182.02	3597.98	
2/19/2015	184.50	3595.50	-2.48
3/8/2016	200.25	3579.75	-15.75
3/1/2017	199.26	3580.74	0.99

All Historic Measurements



SOUTHERN HIGH PLAINS

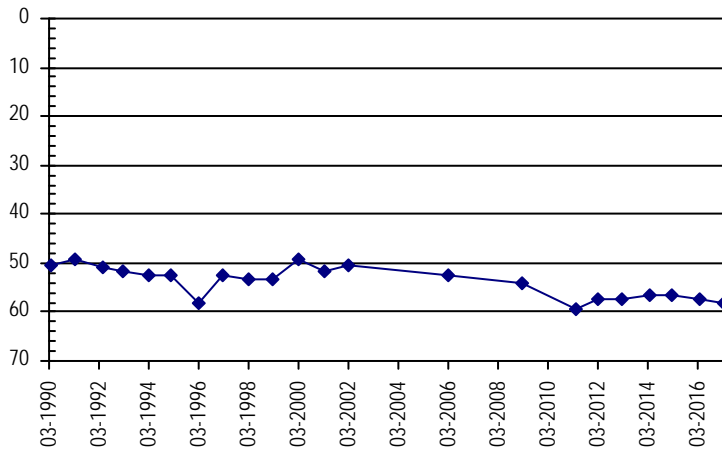
Well Name:	SHP-29 MUNDELL, J.	<i>Owner:</i>	MUNDELL, J.
<i>Permit #:</i>	22678 - -	<i>Location #:</i>	SC03004302BCB
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NW SW NW 2	30 S 43 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4150213.0	<i>Easting (UTM x):</i> 744405.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>		37.466511	-102.236442
<i>Surface Elevation (ft):</i>	3864	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	266	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	DAKOTA		

Water Level Change
1 year: -0.65
5 year: -0.78
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007			
2/20/2008			
2/7/2009	54.10	3809.90	
2/18/2010			
4/12/2011	59.40	3804.60	
2/18/2012	57.30	3806.70	2.10
2/26/2013	57.50	3806.50	-0.20
3/20/2014	56.59	3807.41	0.91
2/19/2015	56.67	3807.33	-0.08
3/10/2016	57.43	3806.57	-0.76
3/2/2017	58.08	3805.92	-0.65

All Historic Measurements



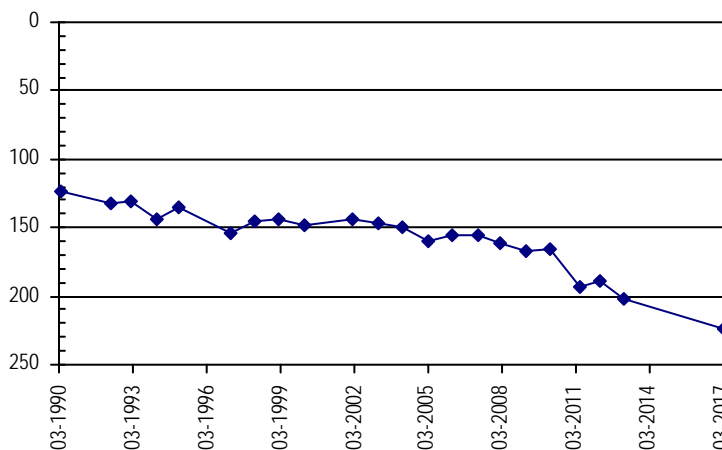
Well Name:	SHP-30 HUME, CHARLES	<i>Owner:</i>	HUME, CHARLES
<i>Permit #:</i>	2503 - FP -	<i>Location #:</i>	SC03004309BBB
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	67
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NW NW NW 9	30 S 43 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4148967.2	<i>Easting (UTM x):</i> 741154.7 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>		37.456148	-102.273563
<i>Surface Elevation (ft):</i>	3923	<i>Top Perforated Interval (ft):</i>	200
<i>Well depth (ft):</i>	631	<i>Bottom Perforated Interval (ft):</i>	300
<i>Aquifer(s):</i>	DAKOTA CHEYENNE		

Water Level Change
1 year:
5 year: -35.50
10 year: -68.80

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	155.70	3767.30	-0.10
2/4/2008	161.20	3761.80	-5.50
2/7/2009	166.70	3756.30	-5.50
2/18/2010	165.70	3757.30	1.00
4/12/2011	194.00	3729.00	-28.30
2/8/2012	189.00	3734.00	5.00
2/25/2013	201.50	3721.50	-12.50
3/20/2014			
2/19/2015			
3/10/2016			
3/2/2017	224.50	3698.50	

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-33 WARD, H.

Owner: WARD, H.

Permit #: - -

Location #: SC03004625DAB

USGS Site ID:

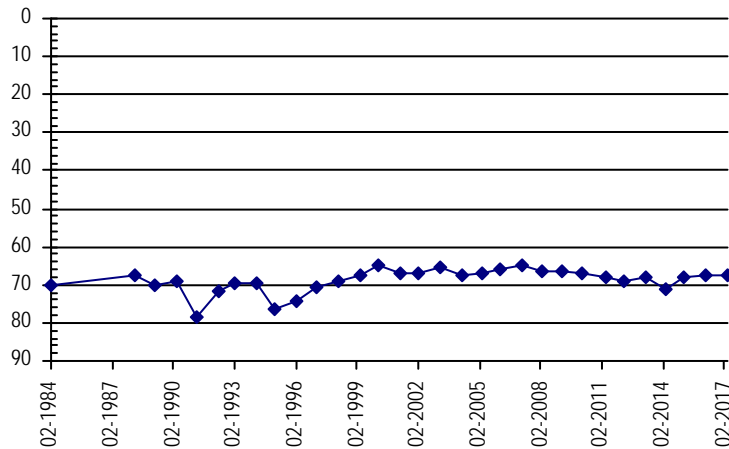
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE NE NW 25 30 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4142603.0 Easting (UTM x): 718353.0 *GPS*
Latitude/Longitude (decimal degrees): 37.404501 -102.533006

Surface Elevation (ft): 4238 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): **Bottom Perforated Interval (ft):** **1 year:** -0.21
Aquifer(s): DAKOTA **5 year:** 1.45
 10 year: -2.65

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/23/2007	65.00	4173.00	1.00
2/8/2008	66.20	4171.80	-1.20
2/9/2009	66.30	4171.70	-0.10
2/20/2010	66.80	4171.20	-0.50
4/12/2011	68.00	4170.00	-1.20
2/24/2012	69.10	4168.90	-1.10
3/8/2013	68.20	4169.80	0.90
3/21/2014	70.99	4167.01	-2.79
2/20/2015	67.81	4170.19	3.18
3/10/2016	67.44	4170.56	0.37
3/1/2017	67.65	4170.35	-0.21

All Historic Measurements



Well Name: SHP-34 TWN.OF SPRINGFIELD

Owner: TWN.OF SPRINGFIELD

Permit #: 15430 - F -

Location #: SC03004631AC

USGS Site ID:

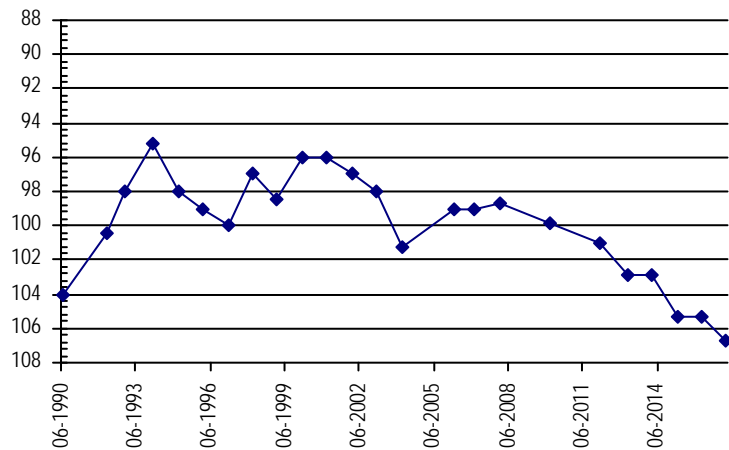
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE SW 31 30 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4141093.0 Easting (UTM x): 710072.0 *Digitized*
Latitude/Longitude (decimal degrees): 37.392817 -102.626921

Surface Elevation (ft): 4392 **Top Perforated Interval (ft):** 90 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 203 **Bottom Perforated Interval (ft):** 203 **1 year:** -1.40
Aquifer(s): DAKOTA **5 year:** -5.67
 10 year: -7.67

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
1/29/2007	99.00	4293.00	0.00
2/26/2008	98.70	4293.30	0.30
1/1/2009			
2/28/2010	99.90	4292.10	
3/3/2011			
2/25/2012	101.00	4291.00	
3/31/2013	102.90	4289.10	-1.90
3/31/2014	102.83	4289.17	0.07
3/30/2015	105.29	4286.71	-2.46
3/31/2016	105.27	4286.73	0.02
3/27/2017	106.67	4285.33	-1.40

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-35 MINNICK, W & E

Owner: MINNICK, W & E

Permit #: 11339 - F - **Location #:** SC03004827ADD

USGS Site ID:

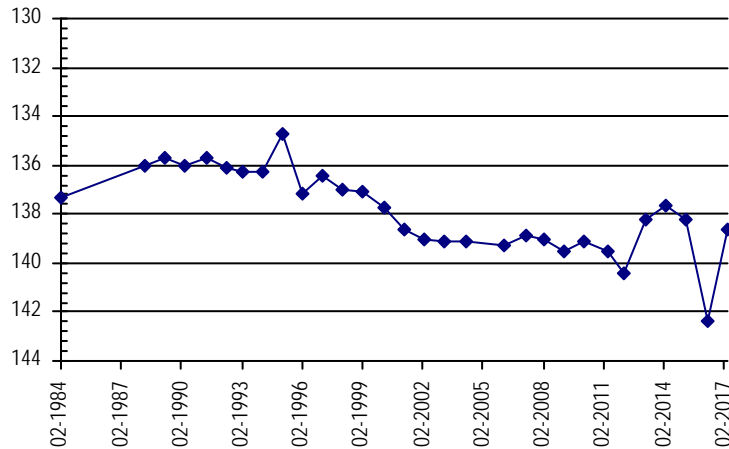
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE SE SE 27 30 S 48 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4142061.0 **Easting (UTM x):** 696077.0 *GPS*
Latitude/Longitude (decimal degrees): 37.404602 -102.784647

Surface Elevation (ft): 4672 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 245 **Bottom Perforated Interval (ft):** **1 year:** 3.80
Aquifer(s): DAKOTA **5 year:** 1.81
10 year: 0.31

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/24/2007	138.90	4533.10	0.40
2/8/2008	139.00	4533.00	-0.10
2/6/2009	139.50	4532.50	-0.50
2/24/2010	139.10	4532.90	0.40
4/12/2011	139.50	4532.50	-0.40
2/24/2012	140.40	4531.60	-0.90
3/8/2013	138.20	4533.80	2.20
3/25/2014	137.66	4534.34	0.54
2/19/2015	138.25	4533.75	-0.59
3/9/2016	142.39	4529.61	-4.14
3/1/2017	138.59	4533.41	3.80

All Historic Measurements



Well Name: SHP-36 JESSER, HARVEY

Owner: JESSER, HARVEY

Permit #: 16299 - FP - **Location #:** SC03004911CB

USGS Site ID:

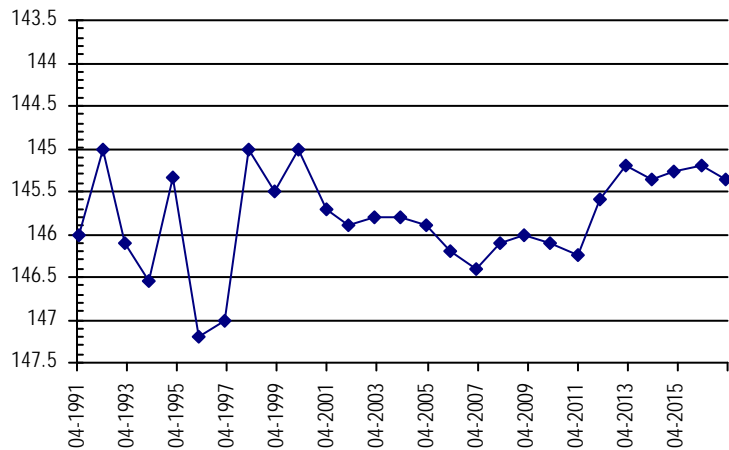
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW NW 11 30 S 49 W S **From N/S line:** 2615 S **From E/W line:** 25 W
UTM Coordinates (NAD83): **Northing (UTM y):** 4146606.0 **Easting (UTM x):** 686430.0 *GPS*
Latitude/Longitude (decimal degrees): 37.447534 -102.892425

Surface Elevation (ft): 4780 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 350 **Bottom Perforated Interval (ft):** **1 year:** -0.18
Aquifer(s): CHEYENNE **5 year:** 0.23
10 year: 1.03

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/24/2007	146.40	4633.60	-0.20
2/8/2008	146.10	4633.90	0.30
2/6/2009	146.00	4634.00	0.10
2/24/2010	146.10	4633.90	-0.10
4/12/2011	146.25	4633.75	-0.15
2/25/2012	145.60	4634.40	0.65
3/8/2013	145.20	4634.80	0.40
3/25/2014	145.37	4634.63	-0.17
2/19/2015	145.26	4634.74	0.11
3/9/2016	145.19	4634.81	0.07
3/1/2017	145.37	4634.63	-0.18

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-45 TWN.OF SPRINGFIELD**

Owner: TWN.OF SPRINGFIELD

Permit #: 6837 - F - **Location #:** SC03104604BC

USGS Site ID:

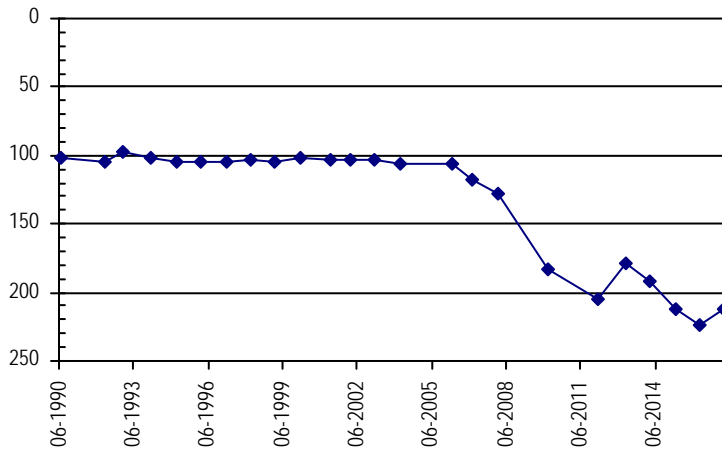
Division: 2 **Water District:** 67 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW 4 31 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4139215.0 **Easting (UTM x):** 711351.0 *User supplied*
Latitude/Longitude (decimal degrees): 37.375613 -102.613021

Surface Elevation (ft): 4403 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 360 **Bottom Perforated Interval (ft):** **1 year:** 10.98
Aquifer(s): OGALLALA **5 year:** -8.01
 DAKOTA **10 year:** -95.41

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
1/29/2007	117.30	4285.70	-11.75
2/26/2008	128.20	4274.80	-10.90
1/1/2009			
2/28/2010	183.60	4219.40	
3/3/2011			
2/25/2012	204.70	4198.30	
3/31/2013	178.67	4224.33	26.03
3/31/2014	191.17	4211.83	-12.50
3/30/2015	212.75	4190.25	-21.58
3/31/2016	223.69	4179.31	-10.94
3/27/2017	212.71	4190.29	10.98

All Historic Measurements



Well Name: **SHP-46 HUMPHREY**

Owner: HUMPHREY

Permit #: 10685 - F - **Location #:** SC03104632AB

USGS Site ID:

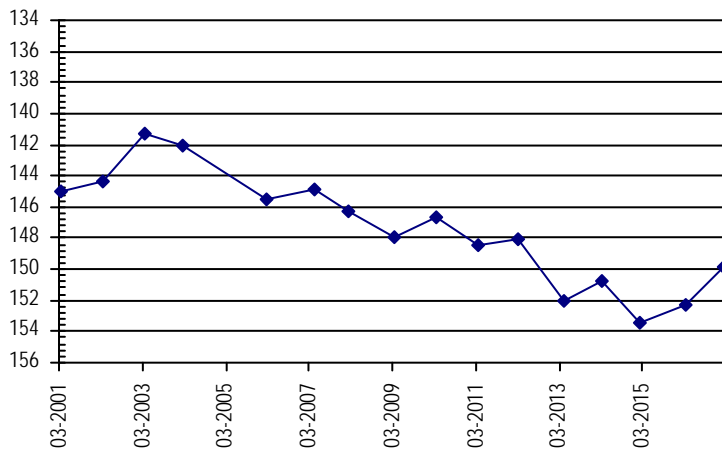
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE NW 32 31 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4131715.0 **Easting (UTM x):** 710838.0 *GPS*
Latitude/Longitude (decimal degrees): 37.308184 -102.620943

Surface Elevation (ft): 4432 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 400 **Bottom Perforated Interval (ft):** **1 year:** 2.35
Aquifer(s): DAKOTA **5 year:** -1.79
 CHEYENNE **10 year:** -4.99

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	144.90	4287.10	0.60
2/24/2008	146.30	4285.70	-1.40
3/9/2009	148.00	4284.00	-1.70
3/12/2010	146.70	4285.30	1.30
3/13/2011	148.40	4283.60	-1.70
3/15/2012	148.10	4283.90	0.30
4/21/2013	152.00	4280.00	-3.90
3/21/2014	150.76	4281.24	1.24
2/18/2015	153.40	4278.60	-2.64
3/8/2016	152.24	4279.76	1.16
2/27/2017	149.89	4282.11	2.35

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-47 TROY BISHOP**

Owner: TROY BISHOP

Permit #: 19969 - FP - *Location #:* SC03104714DC

USGS Site ID:

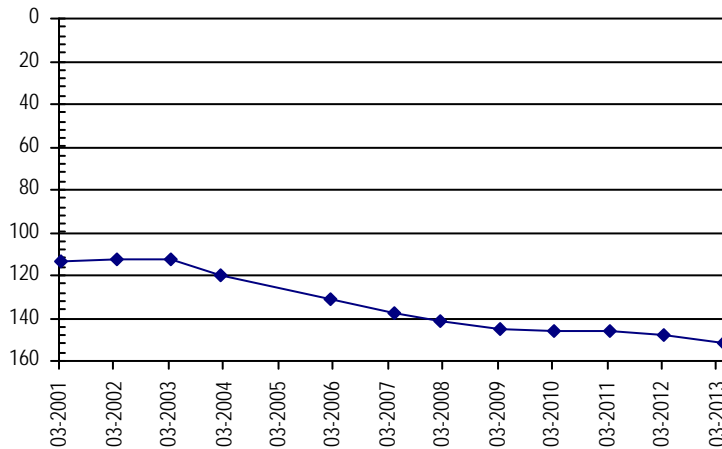
Division: 2 *Water District:* 66 *County:* BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE SW 14 31 S 47 W S *From N/S line:* *From E/W line:*
UTM Coordinates (NAD83): Northing (UTM y): 4134848.0 *Easting (UTM x):* 705638.0 *Digitized*
Latitude/Longitude (decimal degrees): 37.337566 -102.678706

Surface Elevation (ft): 4590 *Top Perforated Interval (ft):* *Base of grout (ft):* **Water Level Change**
Well depth (ft): 549 *Bottom Perforated Interval (ft):* **1 year:**
Aquifer(s): OGALLALA **5 year:**
 DAKOTA **10 year:**

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	137.60	4452.40	-6.60
2/24/2008	141.00	4449.00	-3.40
3/9/2009	145.10	4444.90	-4.10
3/12/2010	146.50	4443.50	-1.40
3/12/2011	145.80	4444.20	0.70
3/15/2012	147.60	4442.40	-1.80
4/21/2013	151.40	4438.60	-3.80

All Historic Measurements



Well Name: **SHP-48 KIRKENDALL,RBT.**

Owner: KIRKENDALL,RBT.

Permit #: 29877 - - *Location #:* SC03104821CAD

USGS Site ID:

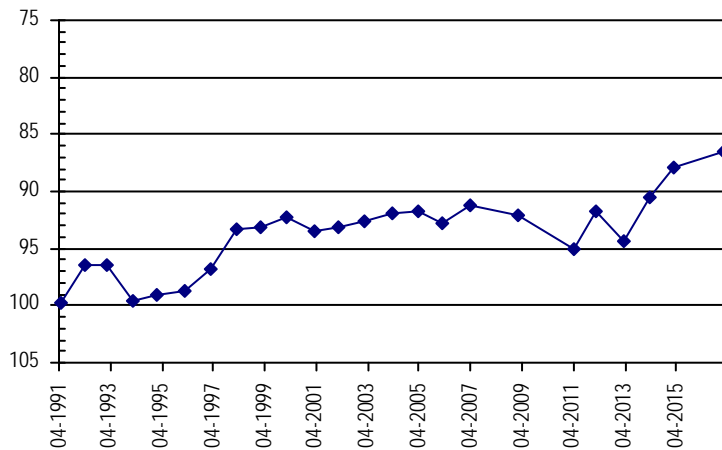
Division: 2 *Water District:* 66 *County:* BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW NE SE 21 31 S 48 W S *From N/S line:* *From E/W line:*
UTM Coordinates (NAD83): Northing (UTM y): 4133361.8 *Easting (UTM x):* 692752.8 *GPS*
Latitude/Longitude (decimal degrees): 37.326943 -102.824445

Surface Elevation (ft): 4738 *Top Perforated Interval (ft):* *Base of grout (ft):* **Water Level Change**
Well depth (ft): 245 *Bottom Perforated Interval (ft):* **1 year:**
Aquifer(s): DAKOTA **5 year:** 5.30
10 year: 4.80

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/24/2007	91.30	4646.70	1.50
2/4/2008			
2/6/2009	92.10	4645.90	
2/24/2010			
4/12/2011	95.10	4642.90	
2/26/2012	91.80	4646.20	3.30
3/8/2013	94.30	4643.70	-2.50
3/25/2014	90.58	4647.42	3.72
2/18/2015	87.83	4650.17	2.75
3/8/2016			
2/27/2017	86.50	4651.50	

All Historic Measurements



SOUTHERN HIGH PLAINS

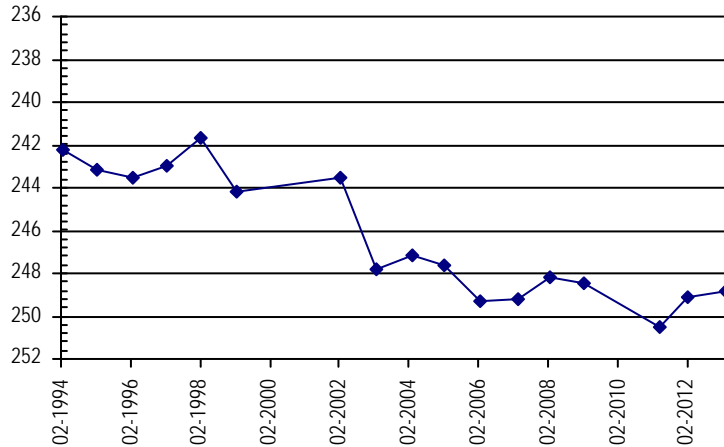
Well Name:	SHP-49 US FOREST SERVICE	Owner:	US FOREST SERVICE
Permit #:	115543 - -	Location #:	SC03105007ACC
USGS Site ID:			
Division:	2	Water District:	67
		County:	BACA
Location:	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NE SW SW 7	31 S 50 W S	From N/S line: From E/W line:
UTM Coordinates (NAD83):	Northing (UTM y):	4136465.0	Easting (UTM x): 670348.8 <i>GPS</i>
Latitude/Longitude (decimal degrees):		37.359278	-103.076462
Surface Elevation (ft):	5193	Top Perforated Interval (ft):	Base of grout (ft):
Well depth (ft):	250	Bottom Perforated Interval (ft):	
Aquifer(s):	DAKOTA		
	CHEYENNE		

Water Level Change
1 year:
5 year:
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/24/2007	249.20	4943.80	0.10
2/8/2008	248.20	4944.80	1.00
2/6/2009	248.50	4944.50	-0.30
1/1/2010			
4/13/2011	250.50	4942.50	
2/25/2012	249.10	4943.90	1.40
3/8/2013	248.80	4944.20	0.30
3/25/2014			
2/17/2015			
3/7/2016			
2/27/2017			

All Historic Measurements



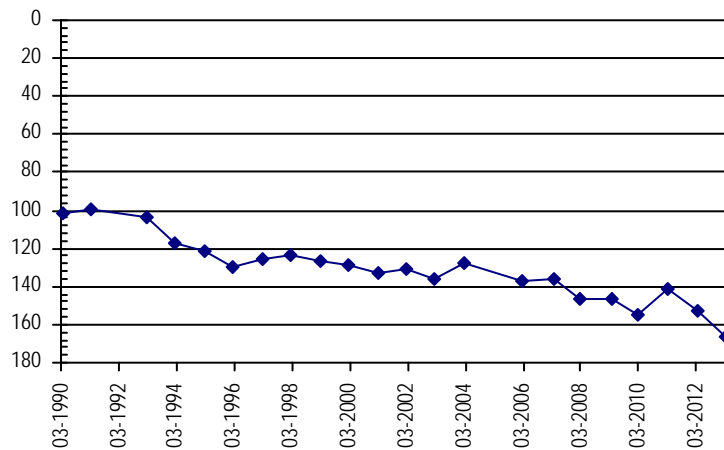
Well Name:	SHP-50 HUME,J.	Owner:	HUME,J.
Permit #:	16087 - F -	Location #:	SC03204105BCC
USGS Site ID:			
Division:	2	Water District:	66
		County:	BACA
Location:	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	NW SW SW 5	32 S 41 W S	From N/S line: From E/W line:
UTM Coordinates (NAD83):	Northing (UTM y):	4130742.0	Easting (UTM x): 759168.0 <i>Digitized</i>
Latitude/Longitude (decimal degrees):		37.287211	-102.076523
Surface Elevation (ft):	3692	Top Perforated Interval (ft):	Base of grout (ft):
Well depth (ft):	500	Bottom Perforated Interval (ft):	
Aquifer(s):	OGALLALA		
	DOCKUM		

Water Level Change
1 year:
5 year:
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/21/2007	136.50	3555.50	1.00
2/22/2008	146.00	3546.00	-9.50
3/3/2009	147.00	3545.00	-1.00
2/26/2010	154.50	3537.50	-7.50
3/6/2011	141.20	3550.80	13.30
3/6/2012	152.60	3539.40	-11.40
3/3/2013	166.90	3525.10	-14.30

All Historic Measurements



SOUTHERN HIGH PLAINS

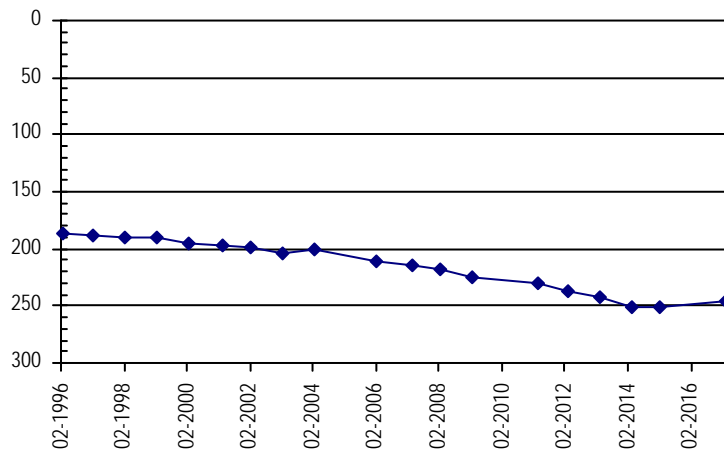
Well Name:	SHP-51 CECIL TRAHERN	<i>Owner:</i>	CECIL TRAHERN
<i>Permit #:</i>	18035 - FP -	<i>Location #:</i>	SC03204204CD
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	66
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	SW SE 4	32 S 42 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4130102.0	<i>Easting (UTM x):</i> 751649.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>	37.283513		-102.161460
<i>Surface Elevation (ft):</i>	4100	<i>Top Perforated Interval (ft):</i>	200
		<i>Base of grout (ft):</i>	
<i>Well depth (ft):</i>	424	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	DOCKUM		

Water Level Change
1 year:
5 year: -8.83
10 year: -30.63

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/3/2007	215.20	3884.80	-4.00
2/22/2008	218.50	3881.50	-3.30
2/16/2009	225.00	3875.00	-6.50
1/1/2010			
3/6/2011	229.50	3870.50	
3/6/2012	237.00	3863.00	-7.50
3/2/2013	243.20	3856.80	-6.20
3/19/2014	251.01	3848.99	-7.81
2/18/2015	250.79	3849.21	0.22
3/8/2016			
3/1/2017	245.83	3854.17	

All Historic Measurements



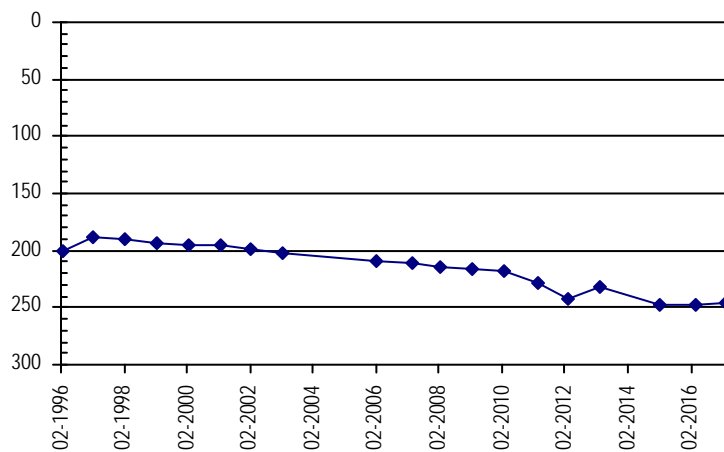
Well Name:	SHP-52 BILL WRIGHT	<i>Owner:</i>	BILL WRIGHT
<i>Permit #:</i>	17021 - FP -	<i>Location #:</i>	SC03204207CB
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	66
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	SW NW 7	32 S 42 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4128417.4	<i>Easting (UTM x):</i> 748283.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>	37.269251		-102.199948
<i>Surface Elevation (ft):</i>	3828	<i>Top Perforated Interval (ft):</i>	
		<i>Base of grout (ft):</i>	
<i>Well depth (ft):</i>	478	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	OGALLALA		
	DOCKUM		

Water Level Change
1 year: 0.48
5 year: -4.74
10 year: -35.94

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/4/2007	210.80	3617.20	-2.20
2/22/2008	214.40	3613.60	-3.60
2/16/2009	216.80	3611.20	-2.40
2/26/2010	218.00	3610.00	-1.20
3/6/2011	228.70	3599.30	-10.70
3/10/2012	242.00	3586.00	-13.30
3/2/2013	232.70	3595.30	9.30
3/19/2014			
2/18/2015	247.32	3580.68	
3/8/2016	247.22	3580.78	0.10
3/1/2017	246.74	3581.26	0.48

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-57 TURNER

Owner: TURNER

Permit #: 10704 - FP -

Location #: SC03204512CCC

USGS Site ID:

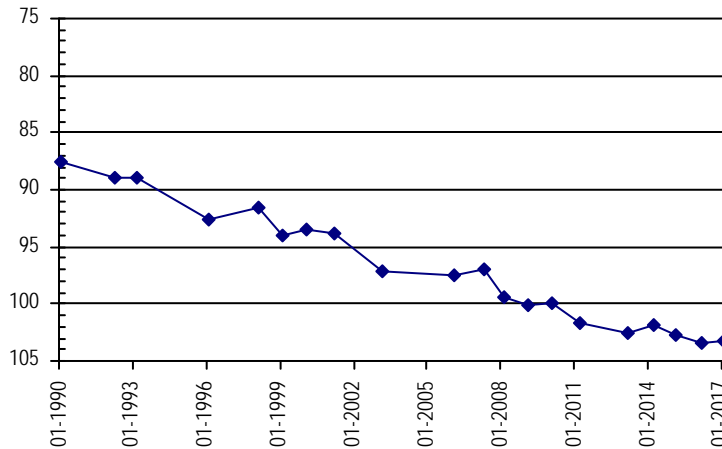
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SW SW 12 32 S 45 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4127430.0 Easting (UTM x): 726918.0 *GPS*
Latitude/Longitude (decimal degrees): 37.265812 -102.440966

Surface Elevation (ft): 4180 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 180 **Bottom Perforated Interval (ft):** **1 year:** 0.17
Aquifer(s): OGALLALA **5 year:** **10 year:** -6.21

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	97.00	4083.00	0.50
2/24/2008	99.50	4080.50	-2.50
2/15/2009	100.20	4079.80	-0.70
2/28/2010	100.00	4080.00	0.20
3/12/2011	101.60	4078.40	-1.60
3/19/2012			
3/3/2013	102.50	4077.50	
3/20/2014	101.92	4078.08	0.58
2/19/2015	102.80	4077.20	-0.88
3/9/2016	103.38	4076.62	-0.58
2/28/2017	103.21	4076.79	0.17

All Historic Measurements



Well Name: SHP-58 HUME, TIM

Owner: HUME, TIM

Permit #: 17551 - -

Location #: SC03204513BCB

USGS Site ID:

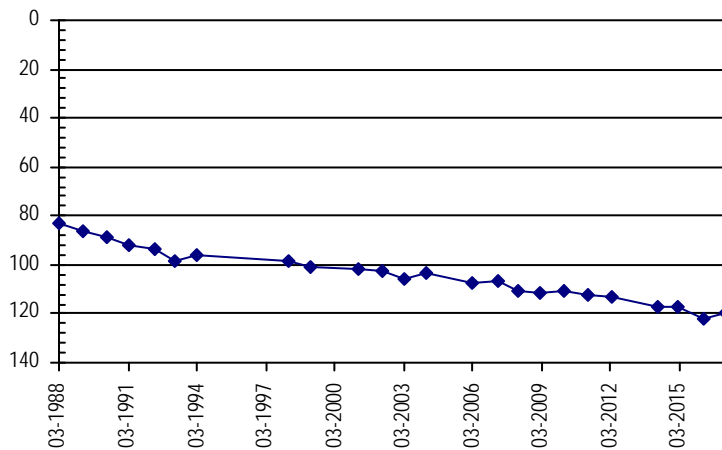
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW NW 13 32 S 45 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4126823.6 Easting (UTM x): 726926.9 *GPS*
Latitude/Longitude (decimal degrees): 37.260349 -102.441051

Surface Elevation (ft): 4221 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 140 **Bottom Perforated Interval (ft):** **1 year:** 1.95
Aquifer(s): OGALLALA **5 year:** -6.45
10 year: -13.35

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	106.50	4114.50	0.80
2/24/2008	110.50	4110.50	-4.00
2/15/2009	111.70	4109.30	-1.20
2/28/2010	111.00	4110.00	0.70
3/12/2011	112.60	4108.40	-1.60
3/19/2012	113.40	4107.60	-0.80
3/2/2013			
3/20/2014	116.83	4104.17	
2/19/2015	117.55	4103.45	-0.72
3/9/2016	121.80	4099.20	-4.25
2/28/2017	119.85	4101.15	1.95

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-59 LMS

Owner: LMS

Permit #: 5344 - F - **Location #:** SC03204519CC **USGS Site ID:**

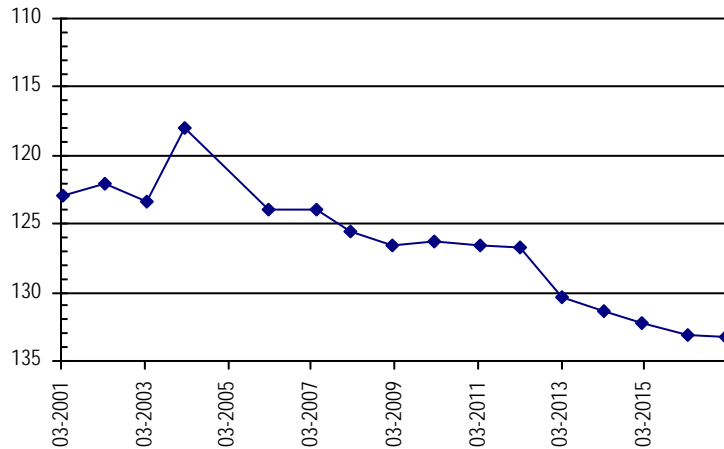
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SW 19 32 S 45 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4123923.6 Easting (UTM x): 718321.8 GPS
Latitude/Longitude (decimal degrees): 37.236290 -102.538853

Surface Elevation (ft): 4320 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 220 **Bottom Perforated Interval (ft):** **1 year:** -0.13
Aquifer(s): OGALLALA **5 year:** -6.57
 Kdp **10 year:** -9.27

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	124.00	4196.00	0.00
2/24/2008	125.50	4194.50	-1.50
2/14/2009	126.50	4193.50	-1.00
2/28/2010	126.30	4193.70	0.20
3/10/2011	126.50	4193.50	-0.20
3/19/2012	126.70	4193.30	-0.20
3/2/2013	130.30	4189.70	-3.60
3/21/2014	131.40	4188.60	-1.10
2/19/2015	132.31	4187.69	-0.91
3/9/2016	133.14	4186.86	-0.83
2/28/2017	133.27	4186.73	-0.13

All Historic Measurements



Well Name: SHP-60 CRANE, W.

Owner: CRANE, W.

Permit #: 12825 - FP - **Location #:** SC03204609AAD **USGS Site ID:**

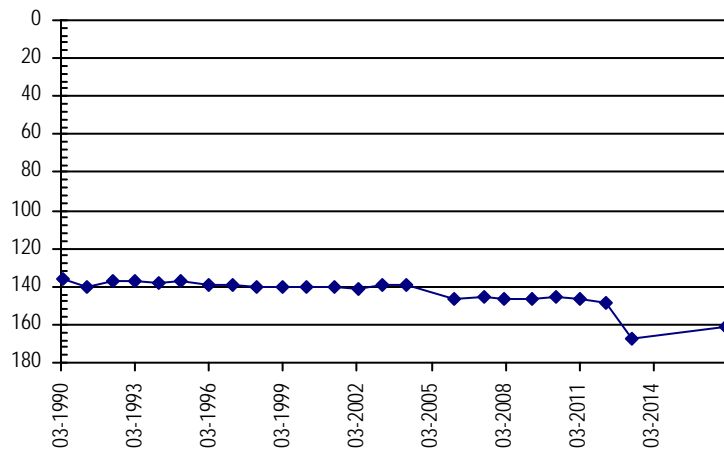
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE NE SE 9 32 S 46 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): Northing (UTM y): 4128182.0 Easting (UTM x): 713025.0 GPS
Latitude/Longitude (decimal degrees): 37.275867 -102.597297

Surface Elevation (ft): 4404 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 400 **Bottom Perforated Interval (ft):** **1 year:** -13.03
Aquifer(s): DAKOTA **5 year:** -13.03
 CHEYENNE **10 year:** -16.03

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	145.20	4258.80	1.00
2/24/2008	146.00	4258.00	-0.80
3/9/2009	147.00	4257.00	-1.00
3/12/2010	145.30	4258.70	1.70
3/5/2011	146.60	4257.40	-1.30
3/15/2012	148.20	4255.80	-1.60
4/21/2013	167.50	4236.50	-19.30
3/20/2014			
2/19/2015			
3/9/2016			
2/28/2017	161.23	4242.77	

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-61 SC03204732CD

Owner:

Permit #:

Location #: SC03204732AC

USGS Site ID:

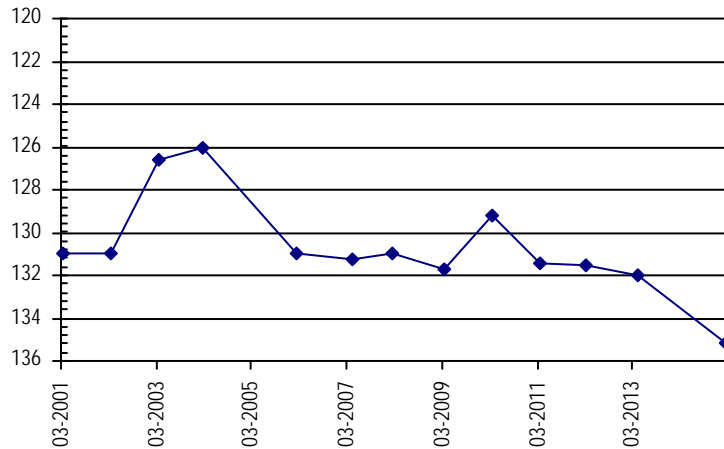
Division: 2 Water District: 66 County: BACA
 Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE SW 32 32 S 47 W S From N/S line: From E/W line:
 UTM Coordinates (NAD83): Northing (UTM y): 4121354.3 Easting (UTM x): 701199.0 GPS
 Latitude/Longitude (decimal degrees): 37.217002 -102.732429

Surface Elevation (ft): Top Perforated Interval (ft): Base of grout (ft): **Water Level Change**
 Well depth (ft): 270 Bottom Perforated Interval (ft): **1 year:**
 Aquifer(s): DAKOTA **5 year:**
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	131.30		-0.30
2/24/2008	131.00		0.30
3/9/2009	131.70		-0.70
3/12/2010	129.20		2.50
3/5/2011	131.40		-2.20
3/15/2012	131.50		-0.10
4/21/2013	132.00		-0.50
3/26/2014			
2/18/2015	135.14		
3/8/2016			
2/27/2017			

All Historic Measurements



Well Name: SHP-62 ARDEN COGBURN

Owner: ARDEN COGBURN

Permit #:

13292 - FP -

Location #: SC03304212CBB

USGS Site ID:

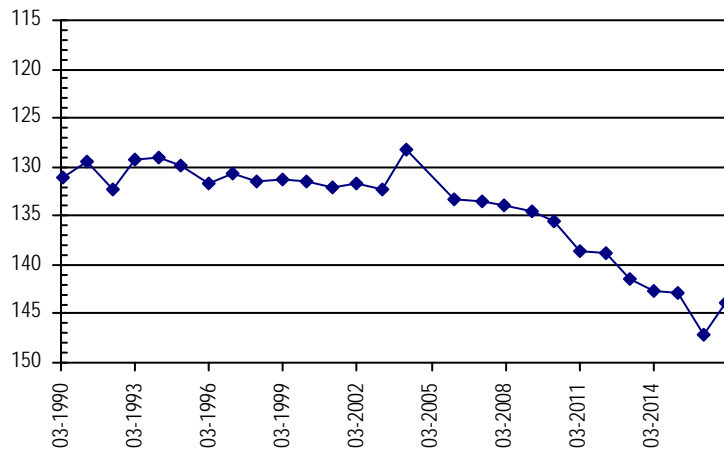
Division: 2 Water District: 66 County: BACA
 Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW NW NW 12 33 S 42 W S From N/S line: From E/W line:
 UTM Coordinates (NAD83): Northing (UTM y): 4119209.6 Easting (UTM x): 756273.4 GPS
 Latitude/Longitude (decimal degrees): 37.184192 -102.113102

Surface Elevation (ft): 3755 Top Perforated Interval (ft): Base of grout (ft): **Water Level Change**
 Well depth (ft): 407 Bottom Perforated Interval (ft): **1 year:** 3.40
 Aquifer(s): OGALLALA **5 year:** -4.92
 DOCKUM **10 year:** -10.32

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	133.50	3621.50	-0.10
2/22/2008	134.00	3621.00	-0.50
3/8/2009	134.60	3620.40	-0.60
2/26/2010	135.50	3619.50	-0.90
3/6/2011	138.70	3616.30	-3.20
3/9/2012	138.90	3616.10	-0.20
3/3/2013	141.50	3613.50	-2.60
3/19/2014	142.69	3612.31	-1.19
2/18/2015	142.94	3612.06	-0.25
3/8/2016	147.22	3607.78	-4.28
2/28/2017	143.82	3611.18	3.40

All Historic Measurements



SOUTHERN HIGH PLAINS

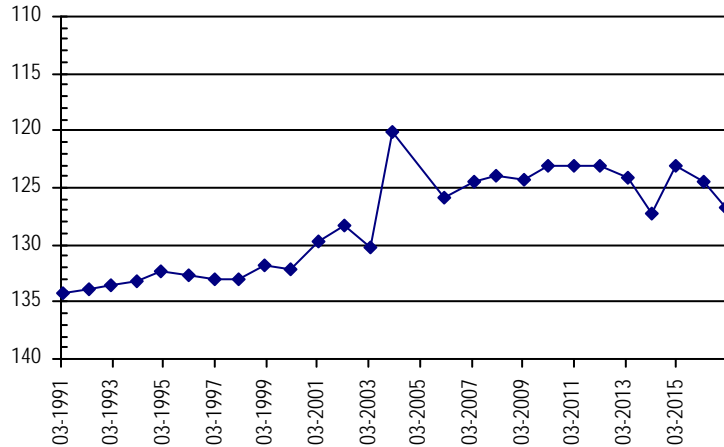
Well Name:	SHP-65 U.S.FOREST SERVICE	<i>Owner:</i>	U.S.FOREST SERVICE
<i>Permit #:</i>	128624 - -	<i>Location #:</i>	SC03304417CBA
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	66
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	SW NW NE 17	33 S 44 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4116908.5	<i>Easting (UTM x):</i> 729723.0 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>		37.170379	-102.412603
<i>Surface Elevation (ft):</i>	4130	<i>Top Perforated Interval (ft):</i>	<i>Base of grout (ft):</i>
<i>Well depth (ft):</i>	240	<i>Bottom Perforated Interval (ft):</i>	
<i>Aquifer(s):</i>	DAKOTA		

Water Level Change
1 year: -2.16
5 year: -3.57
10 year: -2.22

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	124.45	4005.55	1.40
2/23/2008	124.00	4006.00	0.45
3/9/2009	124.35	4005.65	-0.35
2/27/2010	123.15	4006.85	1.20
3/6/2011	123.00	4007.00	0.15
3/19/2012	123.10	4006.90	-0.10
4/21/2013	124.10	4005.90	-1.00
3/25/2014	127.30	4002.70	-3.20
2/18/2015	123.15	4006.85	4.15
3/8/2016	124.51	4005.49	-1.36
2/28/2017	126.67	4003.33	-2.16

All Historic Measurements



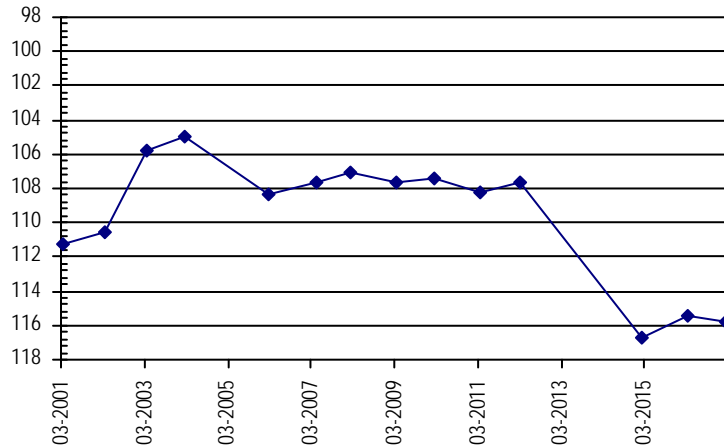
Well Name:	SHP-66 SCHRODER	<i>Owner:</i>	SCHRODER
<i>Permit #:</i>	77852 - F -	<i>Location #:</i>	SC03304515DD
<i>USGS Site ID:</i>			
<i>Division:</i>	2	<i>Water District:</i>	66
		<i>County:</i>	BACA
<i>Location:</i>	Q160 Q40 Q10 Section	Twnshp Range PM	Distance from section lines:
	SE SE 15	33 S 45 W S	<i>From N/S line:</i> <i>From E/W line:</i>
<i>UTM Coordinates (NAD83):</i>	<i>Northing (UTM y):</i>	4116106.5	<i>Easting (UTM x):</i> 724549.9 <i>GPS</i>
<i>Latitude/Longitude (decimal degrees):</i>		37.164414	-102.471056
<i>Surface Elevation (ft):</i>	4200	<i>Top Perforated Interval (ft):</i>	120
<i>Well depth (ft):</i>	245	<i>Bottom Perforated Interval (ft):</i>	235
<i>Aquifer(s):</i>	DAKOTA		

Water Level Change
1 year: -0.36
5 year: -8.19
10 year: -8.09

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
4/1/2007	107.70	4092.30	0.70
2/24/2008	107.10	4092.90	0.60
3/9/2009	107.70	4092.30	-0.60
2/27/2010	107.40	4092.60	0.30
3/6/2011	108.20	4091.80	-0.80
3/19/2012	107.60	4092.40	0.60
4/20/2013			
3/25/2014			
2/18/2015	116.74	4083.26	
3/8/2016	115.43	4084.57	1.31
2/28/2017	115.79	4084.21	-0.36

All Historic Measurements



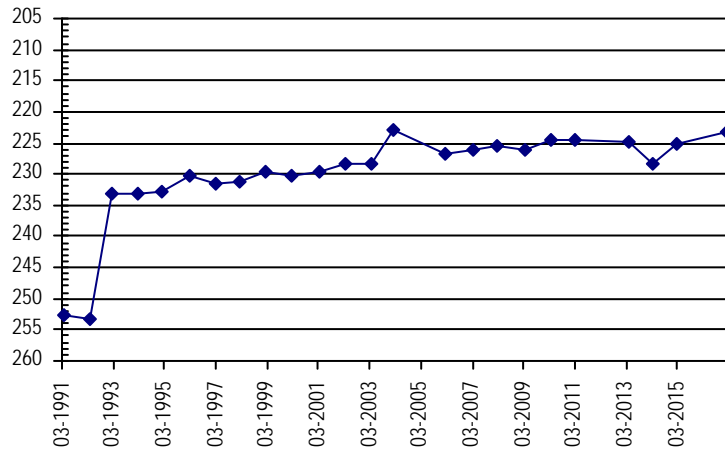
SOUTHERN HIGH PLAINS

Well Name: **SHP-67 FARMERS HOME ADMTN.** *Owner:* FARMERS HOME ADMTN.
Permit #: 19813 - FP - *Location #:* SC03304626BBB *USGS Site ID:*
Division: 2 *Water District:* 66 *County:* BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW NW NW 26 33 S 46 W S *From N/S line:* *From E/W line:*
UTM Coordinates (NAD83): *Northing (UTM y):* 4114077.5 *Easting (UTM x):* 715155.8 *GPS*
Latitude/Longitude (decimal degrees): 37.148351 -102.577351
Surface Elevation (ft): 4340 *Top Perforated Interval (ft):* *Base of grout (ft):* **Water Level Change**
Well depth (ft): 380 *Bottom Perforated Interval (ft):* **1 year:**
Aquifer(s): CHEYENNE **5 year:**
10 year: 2.72

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	226.10	4113.90	0.80
2/24/2008	225.50	4114.50	0.60
3/9/2009	226.10	4113.90	-0.60
3/12/2010	224.50	4115.50	1.60
3/13/2011	224.50	4115.50	0.00
3/15/2012			
4/21/2013	224.80	4115.20	
3/25/2014	228.19	4111.81	-3.39
2/17/2015	225.29	4114.71	2.90
3/8/2016			
2/28/2017	223.38	4116.62	

All Historic Measurements

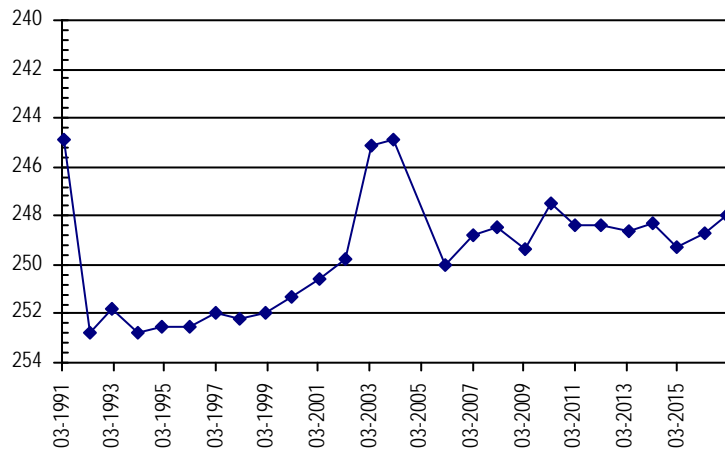


Well Name: **SHP-68 OMALLEY** *Owner:* OMALLEY
Permit #: 20427 - F - *Location #:* SC03304630AA *USGS Site ID:*
Division: 2 *Water District:* 66 *County:* BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE NE 30 33 S 46 W S *From N/S line:* *From E/W line:*
UTM Coordinates (NAD83): *Northing (UTM y):* 4113809.5 *Easting (UTM x):* 708573.8 *GPS*
Latitude/Longitude (decimal degrees): 37.147429 -102.651481
Surface Elevation (ft): 4435 *Top Perforated Interval (ft):* *Base of grout (ft):* **Water Level Change**
Well depth (ft): 535 *Bottom Perforated Interval (ft):* **1 year:** 0.77
Aquifer(s): DAKOTA **5 year:** 0.46
 CHEYENNE **10 year:** 0.86

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	248.80	4186.20	1.20
2/24/2008	248.50	4186.50	0.30
3/9/2009	249.40	4185.60	-0.90
3/12/2010	247.50	4187.50	1.90
3/13/2011	248.40	4186.60	-0.90
3/15/2012	248.40	4186.60	0.00
4/20/2013	248.60	4186.40	-0.20
3/25/2014	248.29	4186.71	0.31
2/18/2015	249.25	4185.75	-0.96
3/8/2016	248.71	4186.29	0.54
2/27/2017	247.94	4187.06	0.77

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-73 WRAY, P.&A.** **Owner:** WRAY, P.&A.
Permit #: 123684 - - **Location #:** SC03404205DAD **USGS Site ID:** 370640102105600

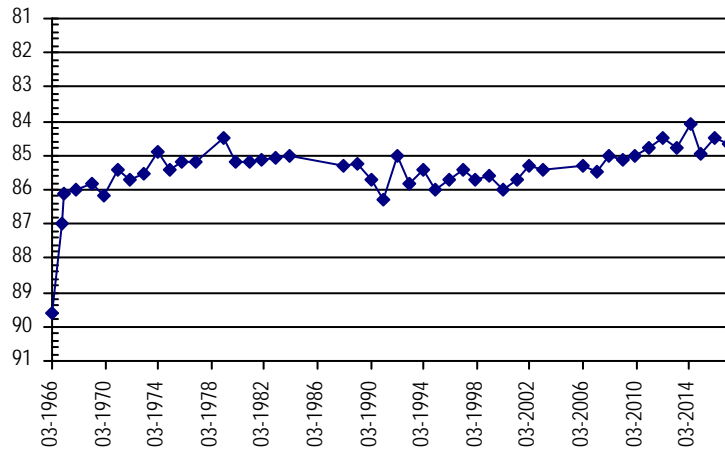
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE NE SE 5 34 S 42 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4110823.2 **Easting (UTM x):** 750235.0 *GPS*
Latitude/Longitude (decimal degrees): 37.110324 -102.183851

Surface Elevation (ft): 3759.59 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 150 **Bottom Perforated Interval (ft):** **1 year:** -0.16
Aquifer(s): DOCKUM **5 year:** -0.15
10 year: 0.85

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	85.50	3674.09	-0.20
2/23/2008	85.00	3674.59	0.50
3/8/2009	85.10	3674.49	-0.10
2/27/2010	85.00	3674.59	0.10
3/6/2011	84.80	3674.79	0.20
3/19/2012	84.50	3675.09	0.30
4/20/2013	84.80	3674.79	-0.30
3/26/2014	84.07	3675.52	0.73
2/17/2015	84.94	3674.65	-0.87
3/7/2016	84.49	3675.10	0.45
2/28/2017	84.65	3674.94	-0.16

All Historic Measurements



Well Name: **SHP-74 DAN WITCHER** **Owner:** DAN WITCHER
Permit #: 15807 - - **Location #:** SC03404221AC **USGS Site ID:**

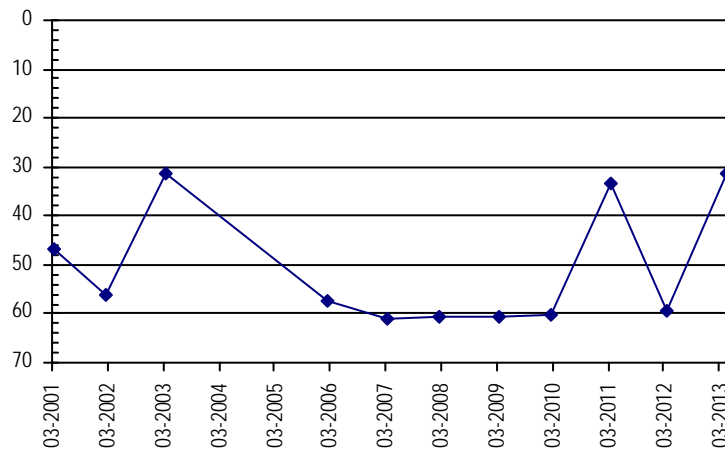
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE SW 21 34 S 42 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4106654.4 **Easting (UTM x):** 751782.4 *GPS*
Latitude/Longitude (decimal degrees): 37.072376 -102.167855

Surface Elevation (ft): **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 105 **Bottom Perforated Interval (ft):** **1 year:**
Aquifer(s): DOCKUM **5 year:**
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/21/2007	61.00		-3.50
2/23/2008	60.50		0.50
3/8/2009	60.60		-0.10
2/27/2010	60.20		0.40
3/6/2011	33.20		27.00
3/19/2012	59.50		-26.30
4/20/2013	31.50		28.00
3/25/2014			
3/7/2016			

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-75 ALLEY LAND & CAT.

Owner: ALLEY LAND & CAT.

Permit #: 3232 - FP - **Location #:** SC03404309CD

USGS Site ID:

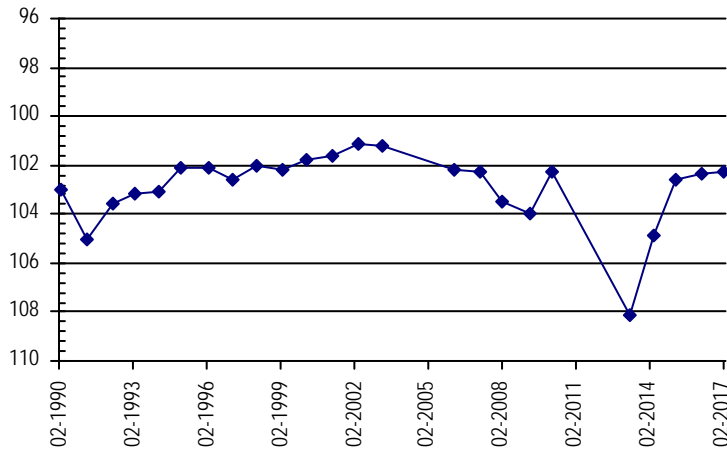
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SE 9 34 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4108587.7 **Easting (UTM x):** 741552.6 *GPS*
Latitude/Longitude (decimal degrees): 37.092475 -102.282181

Surface Elevation (ft): 3965 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 365 **Bottom Perforated Interval (ft):** **1 year:** 0.10
Aquifer(s): DOCKUM **5 year:**
10 year: 0.07

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	102.30	3862.70	-0.10
2/23/2008	103.50	3861.50	-1.20
3/9/2009	104.00	3861.00	-0.50
2/27/2010	102.30	3862.70	1.70
3/6/2011			
3/19/2012			
4/20/2013	108.10	3856.90	
3/26/2014	104.84	3860.16	3.26
2/17/2015	102.60	3862.40	2.24
3/7/2016	102.33	3862.67	0.27
2/28/2017	102.23	3862.77	0.10

All Historic Measurements



Well Name: SHP-76 ALLEY LAND & CATTLE

Owner: ALLEY LAND & CATTLE

Permit #: 29421 - - **Location #:** SC03404320DD

USGS Site ID:

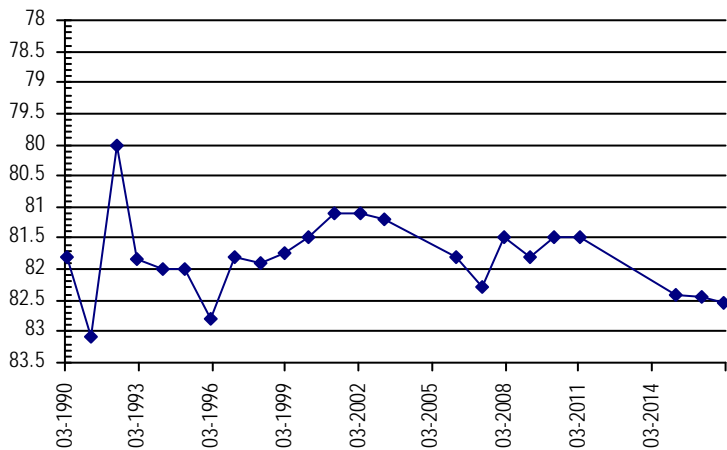
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE SE 20 34 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4105113.3 **Easting (UTM x):** 739383.2 *GPS*
Latitude/Longitude (decimal degrees): 37.061747 -102.307672

Surface Elevation (ft): 3863 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 330 **Bottom Perforated Interval (ft):** **1 year:** -0.09
Aquifer(s): DOCKUM **5 year:**
10 year: -0.25

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	82.30	3780.70	-0.50
2/23/2008	81.50	3781.50	0.80
3/9/2009	81.80	3781.20	-0.30
2/27/2010	81.50	3781.50	0.30
3/6/2011	81.50	3781.50	0.00
3/16/2012			
4/20/2013			
3/26/2014			
2/17/2015	82.40	3780.60	
3/7/2016	82.46	3780.54	-0.06
2/28/2017	82.55	3780.45	-0.09

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-81 USDA FOREST SERV.** **Owner:** USDA FOREST SERV.
Permit #: 127294 - - A **Location #:** SC03404826DDC **USGS Site ID:** 370243102465000

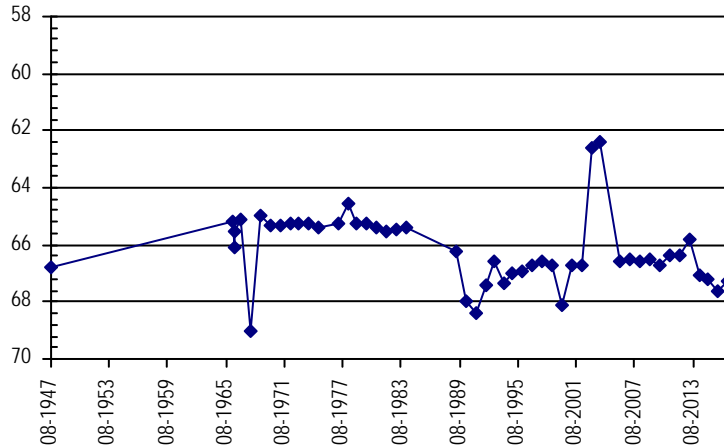
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE SE SW 26 34 S 48 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4102692.0 **Easting (UTM x):** 697228.0 *GPS*
Latitude/Longitude (decimal degrees): 37.049750 -102.782066

Surface Elevation (ft): 4532.15 **Top Perforated Interval (ft):** 80 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 100 **Bottom Perforated Interval (ft):** 100 **1 year:** 0.32
Aquifer(s): DAKOTA **5 year:** -0.91
10 year: -0.81

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	66.50	4465.65	0.10
2/24/2008	66.60	4465.55	-0.10
3/9/2009	66.50	4465.65	0.10
3/12/2010	66.70	4465.45	-0.20
3/13/2011	66.40	4465.75	0.30
3/15/2012	66.40	4465.75	0.00
4/21/2013	65.80	4466.35	0.60
3/25/2014	67.09	4465.06	-1.29
2/17/2015	67.21	4464.94	-0.12
3/7/2016	67.63	4464.52	-0.42
2/27/2017	67.31	4464.84	0.32

All Historic Measurements



Well Name: **SHP-82 KIM SWEARINGEN** **Owner:** KIM SWEARINGEN
Permit #: 49633 - FP - **Location #:** SC03504104DD **USGS Site ID:**

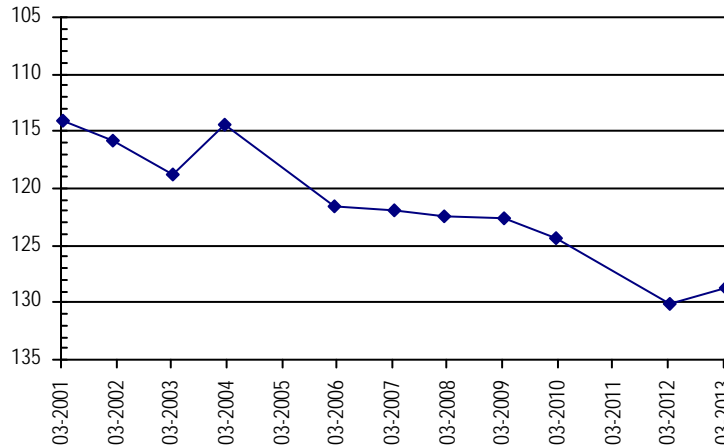
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE SE 4 35 S 41 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4100991.3 **Easting (UTM x):** 762030.5 *GPS*
Latitude/Longitude (decimal degrees): 37.018588 -102.054688

Surface Elevation (ft): **Top Perforated Interval (ft):** 110 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 175 **Bottom Perforated Interval (ft):** 175 **1 year:**
Aquifer(s): DOCKUM **5 year:**
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	122.00		-0.50
2/23/2008	122.50		-0.50
3/8/2009	122.60		-0.10
2/27/2010	124.30		-1.70
3/6/2011			
3/9/2012	130.10		
3/3/2013	128.80		1.30
3/25/2014			

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: SHP-83 RAY GLOVER

Owner: RAY GLOVER

Permit #: 5333 - F - **Location #:** SC03504306CD

USGS Site ID:

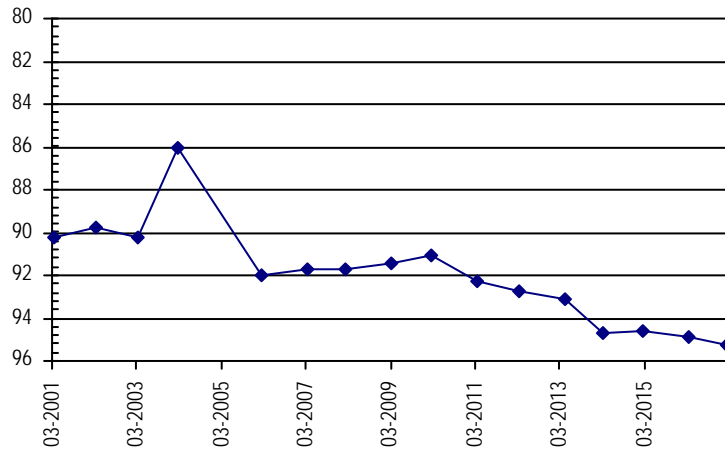
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SE 6 35 S 43 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4100408.3 **Easting (UTM x):** 738380.2 *GPS*
Latitude/Longitude (decimal degrees): 37.019636 -102.320432

Surface Elevation (ft): 3880 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 150 **Bottom Perforated Interval (ft):** **1 year:** -0.36
Aquifer(s): DOCKUM **5 year:** -2.51
10 year: -3.51

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	91.70	3788.30	0.30
2/23/2008	91.70	3788.30	0.00
3/9/2009	91.40	3788.60	0.30
2/27/2010	91.10	3788.90	0.30
3/6/2011	92.30	3787.70	-1.20
3/19/2012	92.70	3787.30	-0.40
4/20/2013	93.10	3786.90	-0.40
3/26/2014	94.74	3785.26	-1.64
2/17/2015	94.62	3785.38	0.12
3/7/2016	94.85	3785.15	-0.23
2/28/2017	95.21	3784.79	-0.36

All Historic Measurements



Well Name: SHP-84 HALLENBACK, G.&M.

Owner: HALLENBACK, G.&M.

Permit #: 127551 - - **Location #:** SC03504510BB

USGS Site ID: 370053102290700

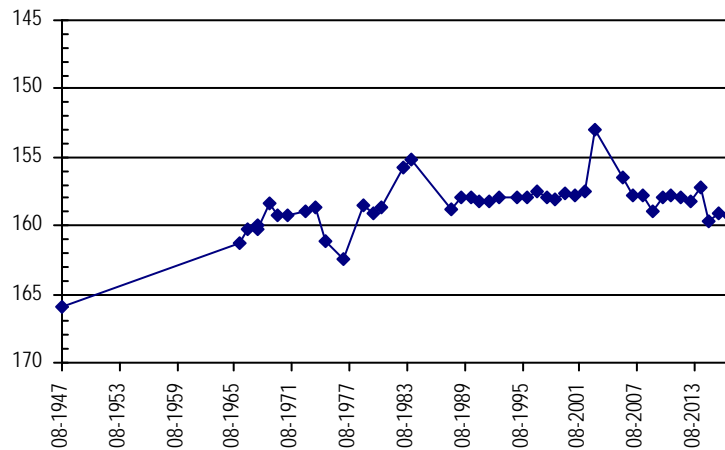
Division: 2 **Water District:** 66 **County:** BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW NW 10 35 S 45 W S **From N/S line:** **From E/W line:**
UTM Coordinates (NAD83): **Northing (UTM y):** 4099464.0 **Easting (UTM x):** 723546.0 *GPS*
Latitude/Longitude (decimal degrees): 37.014780 -102.487309

Surface Elevation (ft): 4104.9 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 250 **Bottom Perforated Interval (ft):** **1 year:** -0.20
Aquifer(s): DAKOTA **5 year:** -1.39
10 year: -1.49

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	157.80	3947.10	-1.30
2/24/2008	157.80	3947.10	0.00
3/9/2009	159.00	3945.90	-1.20
3/12/2010	158.00	3946.90	1.00
3/6/2011	157.80	3947.10	0.20
3/19/2012	157.90	3947.00	-0.10
4/20/2013	158.20	3946.70	-0.30
3/26/2014	157.16	3947.74	1.04
2/17/2015	159.63	3945.27	-2.47
3/7/2016	159.09	3945.81	0.54
2/28/2017	159.29	3945.61	-0.20

All Historic Measurements



SOUTHERN HIGH PLAINS

Well Name: **SHP-87 WELBORN,J.M. 2**

Owner: WELBORN,J.M.

Permit #: 3220 - F - *Location #:* SC03505012BBA

USGS Site ID:

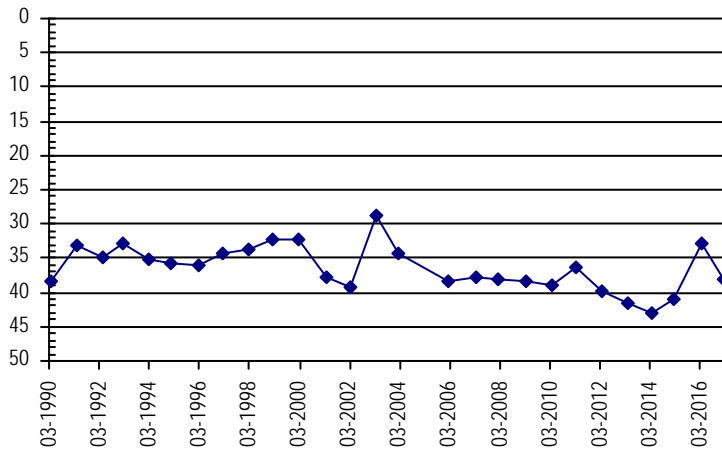
Division: 2 *Water District:* 66 *County:* BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW NW NE 12 35 S 50 W S *From N/S line:* *From E/W line:*
UTM Coordinates (NAD83): Northing (UTM y): 4098722.4 *Easting (UTM x):* 678735.3 *GPS*
Latitude/Longitude (decimal degrees): 37.017694 -102.990846

Surface Elevation (ft): 4411 *Top Perforated Interval (ft):* *Base of grout (ft):* **Water Level Change**
Well depth (ft): 50 *Bottom Perforated Interval (ft):* **1 year:** -5.35
Aquifer(s): DOCKUM **5 year:** 1.72
10 year: -0.28

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	37.80	4373.20	0.70
2/24/2008	38.10	4372.90	-0.30
3/9/2009	38.50	4372.50	-0.40
3/3/2010	38.90	4372.10	-0.40
3/13/2011	36.40	4374.60	2.50
3/15/2012	39.80	4371.20	-3.40
4/20/2013	41.50	4369.50	-1.70
3/26/2014	42.95	4368.05	-1.45
2/17/2015	40.89	4370.11	2.06
3/7/2016	32.73	4378.27	8.16
2/27/2017	38.08	4372.92	-5.35

All Historic Measurements



Well Name: **SHP-88 WELBORN,J.M. 3**

Owner: WELBORN,J.M.

Permit #: 3221 - F - *Location #:* SC03505012BB

USGS Site ID:

Division: 2 *Water District:* 66 *County:* BACA
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW NW 12 35 S 50 W S *From N/S line:* *From E/W line:*
UTM Coordinates (NAD83): Northing (UTM y): 4098663.4 *Easting (UTM x):* 678711.3 *GPS*
Latitude/Longitude (decimal degrees): 37.017167 -102.991130

Surface Elevation (ft): 4410 *Top Perforated Interval (ft):* *Base of grout (ft):* **Water Level Change**
Well depth (ft): 82 *Bottom Perforated Interval (ft):* **1 year:** -5.69
Aquifer(s): DOCKUM **5 year:** 0.29
10 year: -1.61

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/22/2007	34.40	4375.60	0.40
2/24/2008	34.60	4375.40	-0.20
3/9/2009	35.00	4375.00	-0.40
3/3/2010	36.00	4374.00	-1.00
3/13/2011	33.50	4376.50	2.50
3/15/2012	36.30	4373.70	-2.80
4/20/2013	38.00	4372.00	-1.70
3/26/2014	41.79	4368.21	-3.79
2/17/2015	36.36	4373.64	5.43
3/7/2016	30.32	4379.68	6.04
2/27/2017	36.01	4373.99	-5.69

All Historic Measurements

