



GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	5747306
County	Travis
River Basin	Colorado
Groundwater Management Area	9
Regional Water Planning Area	K - Lower Colorado
Groundwater Conservation District	Southwestern Travis County GCD
Latitude (decimal degrees)	30.3405556
Latitude (degrees minutes seconds)	30° 20' 26" N
Longitude (decimal degrees)	-98.1430556
Longitude (degrees minutes seconds)	098° 08' 35" W
Coordinate Source	Global Positioning System - GPS
Aquifer Code	218HNSL - Hensell Sand Member of Travis Peak Formation
Aquifer	Trinity
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	841
Land Surface Elevation Method	Digital Elevation Model -DEM
Well Depth (feet below land surface)	
Well Depth Source	
Drilling Start Date	
Drilling End Date	
Drilling Method	
Borehole Completion	

Well Type	Spring
Well Use	Other
Water Level Observation	None
Water Quality Available	Yes
Pump	
Pump Depth (feet below land surface)	
Power Type	
Annular Seal Method	
Surface Completion	
Owner	West Cave Preserve
Driller	
Other Data Available	
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	Heinz Branch Spring no. 1
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	5/5/2005

Remarks			
Casing - No Data			
Well Tests - No Data			
Lithology - No Data			
Annular Seal Range - No Data			
Borehole - No Data	Plugged	Back - No Data	
Filter Pack - No Data		Packers - No Data	





Water Level Measurements	
No Data Available	





Water Quality Analysis

Sample Date: 10/25/1988 Sample Time: 0915 Sample Number: 1 Collection Entity: Other State Agencies

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: Misc. Commerical Lab Reliability: Collected from pumped well, but not filtered or preserved

Collection Remarks: LCRA MONIT. PROGRAM

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		390	mg/L as CACO 3	
01503	ALPHA, DISSOLVED (PC/L)	<	10	PC/L	
01000	ARSENIC, DISSOLVED (UG/L AS AS)	<	10	ug/L	
01005	BARIUM, DISSOLVED (UG/L AS BA)		130	ug/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		475.93	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)	<	10	ug/L	
01025	CADMIUM, DISSOLVED (UG/L AS CD)	<	10	ug/L	
00910	CALCIUM (MG/L)		101.2	mg/L	
00690	CARBON, TOTAL (MG/L AS C)	<	10	mg/L	
00685	CARBON, TOTAL INORGANIC (MG/L AS C)	<	10	mg/L	
00680	CARBON, TOTAL ORGANIC (MG/L AS C)		0.9	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		23	mg/L	
46560	CHROMIUM, FIELD ACIDIFIED W/HNO3, FILTERED, UG/L	<	10	ug/L	
01040	COPPER, DISSOLVED (UG/L AS CU)	<	10	ug/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		0.4	mg/L	
78115	HALOGEN, TOTAL ORGANIC, UG/L	<	10	ug/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		375	mg/L as CACO 3	
01045	IRON, TOTAL (UG/L AS FE)	<	10	ug/L	
46564	LEAD, FIELD FILTERED, ACIDIFIED W/HNO3, UG/L	<	10	ug/L	
00920	MAGNESIUM (MG/L)		30	mg/L	
01055	MANGANESE, TOTAL (UG/L AS MN)	<	10	ug/L	
71890	MERCURY, DISSOLVED (UG/L AS HG)	<	2	ug/L	
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)		1.33	mg/L as N	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		5.89	mg/L as NO3	
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	<	0.01	mg/L as N	
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	<	0.01	mg/L as N	





Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	<	0.01	mg/L as N	
00090	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		0.16	MV	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)		2.39	mg/L	
00400	PH (STANDARD UNITS), FIELD		7.6	SU	
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	<	0.01	mg/L as P	
00665	PHOSPHORUS, TOTAL (MG/L AS P)	<	0.01	mg/L as P	
00937	POTASSIUM, TOTAL (MG/L AS K)		1.6	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0.28		
70300	RESIDUE, TOTAL FILTERABLE (DRIED AT 180C), MG/L		430	mg/L	
01145	SELENIUM, DISSOLVED (UG/L AS SE)	<	10	ug/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		7	mg/L as SIO2	
46566	SILVER, FIELD FILTERED, ACIDIFIED W/HNO3, UG/L	<	10	ug/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.47		
00932	SODIUM, CALCULATED, PERCENT		8	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		17	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		756	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		17	mg/L as SO4	
00010	TEMPERATURE, WATER (CELSIUS)		22	С	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		437	mg/L	
01090	ZINC, DISSOLVED (UG/L AS ZN)	<	10	ug/L	





Water Quality Analysis

Sample Date: 5/10/1989 Sample Time: 1345 Sample Number: 1 Collection Entity: Other State Agencies

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: Misc. Industrial Lab Reliability: Sampled using TWDB protocols

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		362	mg/L as CACO 3	
01005	BARIUM, DISSOLVED (UG/L AS BA)		90	ug/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		441.77	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)	<	10	ug/L	
00915	CALCIUM, DISSOLVED (MG/L AS CA)		103.6	mg/L	
00680	CARBON, TOTAL ORGANIC (MG/L AS C)		1.23	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00941	CHLORIDE, DISSOLVED (MG/L AS CL)		18	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		0.3	mg/L	
78115	HALOGEN, TOTAL ORGANIC, UG/L		14	ug/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		396	mg/L as CACO 3	
01046	IRON, DISSOLVED (UG/L AS FE)	<	10	ug/L	
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)		33.6	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		5.31	mg/L as NO3	
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	<	0.01	mg/L as N	
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		0.01	mg/L as N	
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)			mg/L as N	
00400	PH (STANDARD UNITS), FIELD		7.57	SU	
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	<	0.01	mg/L as P	
00935	POTASSIUM, DISSOLVED (MG/L AS K)		1.5	mg/L	
81277	PURGEABLE ORGANIC CARBON, UG/L		0.2	ug/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
70300	RESIDUE, TOTAL FILTERABLE (DRIED AT 180C), MG/L		384	mg/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		5.88	mg/L as SIO2	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.29		
00932	SODIUM, CALCULATED, PERCENT		6	PCT	
00930	SODIUM, DISSOLVED (MG/L AS NA)		13.2	mg/L	





Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00946	SULFATE, DISSOLVED (MG/L AS SO4)		12	mg/L as SO4	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		410	mg/L	





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Water Quality Analysis

Sample Date: 5/5/2005 Sample Time: 1414 Sample Number: 1 Collection Entity: Texas Water Development Board

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: LCRA - Lower Colorado River Authority Reliability: Sampled using TWDB protocols

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
39086	ALKALINITY FIELD DISSOLVED AS CACO3		382	mg/L as CACO 3	
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		379	mg/L as CACO 3	
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	<	4.08	ug/L	
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	<	1.02	ug/L	
01000	ARSENIC, DISSOLVED (UG/L AS AS)	<	2.04	ug/L	
01005	BARIUM, DISSOLVED (UG/L AS BA)		72.6	ug/L	
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	<	1.02	ug/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		462.51	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)		84.5	ug/L	
71870	BROMIDE, DISSOLVED, (MG/L AS BR)		0.105	mg/L	
01025	CADMIUM, DISSOLVED (UG/L AS CD)	<	1.02	ug/L	
00915	CALCIUM, DISSOLVED (MG/L AS CA)		97.5	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00941	CHLORIDE, DISSOLVED (MG/L AS CL)		13.6	mg/L	
01030	CHROMIUM, DISSOLVED (UG/L AS CR)		2.23	ug/L	
01035	COBALT, DISSOLVED (UG/L AS CO)	<	1.02	ug/L	
01040	COPPER, DISSOLVED (UG/L AS CU)		1.11	ug/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		0.4	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		388	mg/L as CACO 3	
01046	IRON, DISSOLVED (UG/L AS FE)	<	51	ug/L	
01049	LEAD, DISSOLVED (UG/L AS PB)	<	1.02	ug/L	
01130	LITHIUM, DISSOLVED (UG/L AS LI)		4.4	ug/L	
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)		35	mg/L	
01056	MANGANESE, DISSOLVED (UG/L AS MN)	<	1.02	ug/L	
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	<	1.02	ug/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		2.32	mg/L as NO3	
00631	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		0.5233	mg/L as N	
00400	PH (STANDARD UNITS), FIELD		6.96	SU	





Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00935	POTASSIUM, DISSOLVED (MG/L AS K)		0.83	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
01145	SELENIUM, DISSOLVED (UG/L AS SE)	<	4.08	ug/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		16.9	mg/L as SIO2	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.24		
00932	SODIUM, CALCULATED, PERCENT		6	PCT	
00930	SODIUM, DISSOLVED (MG/L AS NA)		11.2	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		782	MICR	
01080	STRONTIUM, DISSOLVED (UG/L AS SR)		347	ug/L	
00946	SULFATE, DISSOLVED (MG/L AS SO4)		14.8	mg/L as SO4	
00010	TEMPERATURE, WATER (CELSIUS)		19.1	С	
01057	THALLIUM, DISSOLVED (UG/L AS TL)	<	1.02	ug/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		420	mg/L	
01085	VANADIUM, DISSOLVED (UG/L AS V)		3.62	ug/L	
01090	ZINC, DISSOLVED (UG/L AS ZN)		10	ug/L	





Water Quality Analysis

Sample Date: 4/28/2017 Sample Time: 1110 Sample Number: 1 Collection Entity: Barton Springs/Edwards Aquifer CD

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: LCRA - Lower Colorado River Authority Reliability: Sampled using TWDB protocols

Collection Remarks: Lab Calculated Anion/Cation Chg Bal set to TWDB Calculated Value due to an error in the lab calculated formula

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00425	ALKALINITY, BICARBONATE DISSOLVED (MG/L), LAB		354	mg/L	
00430	ALKALINITY, CARBONATE DISSOLVED (MG/L), LAB		0	mg/L	
00420	ALKALINITY, HYDROXIDE DISSOLVED (MG/L), LAB		0	mg/L	
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		354	mg/L as CACO 3	
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	<	5	ug/L	
50938	ANION/CATION CHG BAL, PERCENT		1.3601	PCT	
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	<	1	ug/L	
01000	ARSENIC, DISSOLVED (UG/L AS AS)	<	1	ug/L	
01005	BARIUM, DISSOLVED (UG/L AS BA)		67.3	ug/L	
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	<	1	ug/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		432.002	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)		59.9	ug/L	
71870	BROMIDE, DISSOLVED, (MG/L AS BR)	<	0.02	mg/L	
01025	CADMIUM, DISSOLVED (UG/L AS CD)	<	1	ug/L	
00915	CALCIUM, DISSOLVED (MG/L AS CA)		97.8	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00941	CHLORIDE, DISSOLVED (MG/L AS CL)		19.2	mg/L	
01030	CHROMIUM, DISSOLVED (UG/L AS CR)		2.27	ug/L	
01035	COBALT, DISSOLVED (UG/L AS CO)	<	1	ug/L	
01040	COPPER, DISSOLVED (UG/L AS CU)	<	1	ug/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		0.301	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		385.874	mg/L as CACO 3	
01046	IRON, DISSOLVED (UG/L AS FE)	<	50	ug/L	
01049	LEAD, DISSOLVED (UG/L AS PB)	<	1	ug/L	
01130	LITHIUM, DISSOLVED (UG/L AS LI)		4.25	ug/L	
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)		34.3	mg/L	
01056	MANGANESE, DISSOLVED (UG/L AS MN)		2.1	ug/L	
71890	MERCURY, DISSOLVED (UG/L AS HG)	<	0.2	ug/L	
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	<	1	ug/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		0.961	mg/L as NO3	





Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00631	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		0.217	mg/L as N	
00400	PH (STANDARD UNITS), FIELD		6.95	SU	
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	<	0.02	mg/L as P	
00935	POTASSIUM, DISSOLVED (MG/L AS K)		1.14	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
01145	SELENIUM, DISSOLVED (UG/L AS SE)	<	5	ug/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		13.3	mg/L as SIO2	
01075	SILVER, DISSOLVED (UG/L AS AG)	<	1	ug/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.248		
00932	SODIUM, CALCULATED, PERCENT		5.949	PCT	
00930	SODIUM, DISSOLVED (MG/L AS NA)		11.2	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		763	MICR	
01080	STRONTIUM, DISSOLVED (UG/L AS SR)		307	ug/L	
00946	SULFATE, DISSOLVED (MG/L AS SO4)		16.9	mg/L as SO4	
00010	TEMPERATURE, WATER (CELSIUS)		25.72	С	
01057	THALLIUM, DISSOLVED (UG/L AS TL)	<	1	ug/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		407.824	mg/L	
22703	URANIUM, NATURAL, DISSOLVED (UG/L AS U)		1.11	ug/L	
01085	VANADIUM, DISSOLVED (UG/L AS V)		3.89	ug/L	
01090	ZINC, DISSOLVED (UG/L AS ZN)	<	5	ug/L	





Water Quality Analysis

Sample Date: 6/19/2020 Sample Time: 1140 Sample Number: 1 Collection Entity: Texas Water Development Board

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: LCRA - Lower Colorado River Authority Reliability: Sampled using TWDB protocols

Collection Remarks: Samples from Heinz Branch Spring no. 1.5 at West Cave Preserve.

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00425	ALKALINITY, BICARBONATE DISSOLVED (MG/L), LAB		398	mg/L	
00430	ALKALINITY, CARBONATE DISSOLVED (MG/L), LAB		0	mg/L	
00420	ALKALINITY, HYDROXIDE DISSOLVED (MG/L), LAB		0	mg/L	
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		398	mg/L as CACO 3	
01106	ALUMINUM, DISSOLVED (UG/L AS AL)		8.92	ug/L	
50938	ANION/CATION CHG BAL, PERCENT		2.59	PCT	
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	<	1	ug/L	
01000	ARSENIC, DISSOLVED (UG/L AS AS)	<	1	ug/L	
01005	BARIUM, DISSOLVED (UG/L AS BA)		83.4	ug/L	
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	<	1	ug/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		485.698	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)	<	50	ug/L	
71870	BROMIDE, DISSOLVED, (MG/L AS BR)		0.176	mg/L	
01025	CADMIUM, DISSOLVED (UG/L AS CD)	<	1	ug/L	
00915	CALCIUM, DISSOLVED (MG/L AS CA)		117	mg/L	
82172	CARBON-14 FRACTION MODERN		1.02		0.0037
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00941	CHLORIDE, DISSOLVED (MG/L AS CL)		26.2	mg/L	
01030	CHROMIUM, DISSOLVED (UG/L AS CR)		5.74	ug/L	
01035	COBALT, DISSOLVED (UG/L AS CO)	<	1	ug/L	
01040	COPPER, DISSOLVED (UG/L AS CU)	<	1	ug/L	
82081	DELTA CARBON 13 C13/C12 PER MIL		-11	0/00	
50791	DEUTERIUM, EXPRESSED AS PERMIL VSMOW		-26.86	0/00	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		0.259	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		444.996	mg/L as CACO 3	
01046	IRON, DISSOLVED (UG/L AS FE)	<	50	ug/L	
01049	LEAD, DISSOLVED (UG/L AS PB)	<	1	ug/L	
01130	LITHIUM, DISSOLVED (UG/L AS LI)		4.7	ug/L	
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)		37	mg/L	
01056	MANGANESE, DISSOLVED (UG/L AS MN)		123	ug/L	
71890	MERCURY, DISSOLVED (UG/L AS HG)	<	0.2	ug/L	





Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	<	1	ug/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		0.175	mg/L as NO3	
00631	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		0.0396	mg/L as N	
50790	OXYGEN-18, EXPRESSED AS PERMIL VSMOW		-4.53	0/00	
00400	PH (STANDARD UNITS), FIELD		6.92	SU	
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	<	0.02	mg/L as P	
00935	POTASSIUM, DISSOLVED (MG/L AS K)		1.37	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
01145	SELENIUM, DISSOLVED (UG/L AS SE)	<	5	ug/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		15	mg/L as SIO2	
01075	SILVER, DISSOLVED (UG/L AS AG)	<	1	ug/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.275		
00932	SODIUM, CALCULATED, PERCENT		6.115	PCT	
00930	SODIUM, DISSOLVED (MG/L AS NA)		13.3	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		711	MICR	
01080	STRONTIUM, DISSOLVED (UG/L AS SR)		351	ug/L	
48297	STRONTIUM, ISOTOPE OF MASS 86 AND 87 RATIO		0.7082114	N/A	
00946	SULFATE, DISSOLVED (MG/L AS SO4)		14.9	mg/L as SO4	
00010	TEMPERATURE, WATER (CELSIUS)		26.3	С	
01057	THALLIUM, DISSOLVED (UG/L AS TL)	<	1	ug/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		464.373	mg/L	
07012	TRITIUM IN WATER (TRITIUM UNITS)		1.4	TU	0.09
22703	URANIUM, NATURAL, DISSOLVED (UG/L AS U)	<	1	ug/L	
01085	VANADIUM, DISSOLVED (UG/L AS V)		3.79	ug/L	
01090	ZINC, DISSOLVED (UG/L AS ZN)	<	5	ug/L	





Water Quality Analysis

Sample Date: 4/28/2021 Sample Time: 1015 Sample Number: 1 Collection Entity: Texas Water Development Board

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: LCRA - Lower Colorado River Authority Reliability: Sampled using TWDB protocols

Collection Remarks: Samples from Heinz Branch Spring no. 1.5 at West Cave Preserve.

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00425	ALKALINITY, BICARBONATE DISSOLVED (MG/L), LAB		337	mg/L	
00430	ALKALINITY, CARBONATE DISSOLVED (MG/L), LAB		0	mg/L	
00420	ALKALINITY, HYDROXIDE DISSOLVED (MG/L), LAB		0	mg/L	
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		337	mg/L as CACO 3	
01503	ALPHA, DISSOLVED (PC/L)	<	3	PC/L	2.76
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	<	5	ug/L	
50938	ANION/CATION CHG BAL, PERCENT		0.36	PCT	
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	<	1	ug/L	
01000	ARSENIC, DISSOLVED (UG/L AS AS)	<	1	ug/L	
01005	BARIUM, DISSOLVED (UG/L AS BA)		69.6	ug/L	
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	<	1	ug/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		411.257	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)		61.4	ug/L	
71870	BROMIDE, DISSOLVED, (MG/L AS BR)		0.144	mg/L	
01025	CADMIUM, DISSOLVED (UG/L AS CD)	<	1	ug/L	
00915	CALCIUM, DISSOLVED (MG/L AS CA)		90.3	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00941	CHLORIDE, DISSOLVED (MG/L AS CL)		27.1	mg/L	
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	<	1	ug/L	
01035	COBALT, DISSOLVED (UG/L AS CO)	<	1	ug/L	
01040	COPPER, DISSOLVED (UG/L AS CU)	<	1	ug/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		0.26	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		371.264	mg/L as CACO 3	
01046	IRON, DISSOLVED (UG/L AS FE)	<	50	ug/L	
01049	LEAD, DISSOLVED (UG/L AS PB)	<	1	ug/L	
01130	LITHIUM, DISSOLVED (UG/L AS LI)		4.65	ug/L	
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)		35.3	mg/L	
01056	MANGANESE, DISSOLVED (UG/L AS MN)		2.44	ug/L	
71890	MERCURY, DISSOLVED (UG/L AS HG)	<	0.2	ug/L	
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	<	1	ug/L	





Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		1.058	mg/L as NO3	
00631	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		0.239	mg/L as N	
00400	PH (STANDARD UNITS), FIELD		6.85	SU	
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)		0.072	mg/L as P	
00935	POTASSIUM, DISSOLVED (MG/L AS K)		0.922	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
01145	SELENIUM, DISSOLVED (UG/L AS SE)	<	5	ug/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		14.8	mg/L as SIO2	
01075	SILVER, DISSOLVED (UG/L AS AG)	<	1	ug/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.289		
00932	SODIUM, CALCULATED, PERCENT		6.988	PCT	
00930	SODIUM, DISSOLVED (MG/L AS NA)		12.8	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		667	MICR	
01080	STRONTIUM, DISSOLVED (UG/L AS SR)		309	ug/L	
00946	SULFATE, DISSOLVED (MG/L AS SO4)		19.7	mg/L as SO4	
00010	TEMPERATURE, WATER (CELSIUS)		21.4	С	
01057	THALLIUM, DISSOLVED (UG/L AS TL)	<	1	ug/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		404.764	mg/L	
22703	URANIUM, NATURAL, DISSOLVED (UG/L AS U)		1.06	ug/L	
01085	VANADIUM, DISSOLVED (UG/L AS V)		3.2	ug/L	
01090	ZINC, DISSOLVED (UG/L AS ZN)	<	5	ug/L	





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Water Quality Analysis

Sample Date: 5/4/2022 Sample Time: 1110 Sample Number: 1 Collection Entity: Texas Water Development Board

Sampled Aquifer: Hensell Sand Member of Travis Peak Formation

Analyzed Lab: LCRA - Lower Colorado River Authority Reliability: Sampled using TWDB protocols

Collection Remarks: Samples from Heinz Branch Spring no. 1.5 at West Cave Preserve.

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
82244	ALKALINITY PHENOLPHTHALEIN FIELD DATA (MG/L)		384	mg/L	
00400	PH (STANDARD UNITS), FIELD		7.18	SU	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		808	MICR	
00010	TEMPERATURE, WATER (CELSIUS)		23.2	С	

^{*} Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..

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