TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer(s) OGALLALA Project No. _____ State Well No. 10 - 17 - 603

_____ Field No./Owner's Well No. _____ County PARMER

1. Location: NW ¼, NW ¼, Section 9, Block Sub B, Survey RHEA BRO, Lat. 34-41-00, Long. 102-53-41

2. Owner: DONALD DALE Address: HCR 2, FRIONA TX

Tenant (other): _____ Address: _____

Driller: _____ Address: _____

3. Land Surface Elevation: 4147 ft. above msl determined by _____

4. Drilled: _____ 19____; Dug, Cable Tool, Rotary, Air, _____

5. Depth: Rept. _____ ft. Meas. _____ ft.

6. Borehole Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed

7. Pump: Mfr. _____ Type Submersible

No. Stages _____, Bowls Diam. _____ in., Setting _____ ft.

Column Diam. _____ in., Length Tailpipe _____ ft.

8. Motor: Mfr. _____ Fuel _____ HP. _____

9. Yield: Flow _____ gpm, Pump _____ gpm, Meas., Rept., Est. _____ Date _____

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level _____ ft. Pumping Level _____ ft. Drawdown _____ ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

11. Quality: (Remarks on taste, odor, color, etc.) _____

Analyses

Date _____ Laboratory _____ TDS _____ Sp Cond _____

Date _____ Laboratory _____ TDS _____ Sp Cond _____

12. Other data available (as circled): Pumping Test, Power & Yield Test, Drillers Log, Formation Samples, Geophysical Log(s) _____

CASING, BLANK PIPE & WELL SCREEN Cemented From ____ ft. to ____ ft.			
Diam. (in.)	Type	Setting (feet) from	to

13. Water Level(s): _____ ft. rept. meas. _____ 19___ above below _____ (type) which is _____ ft. above below Land Surface

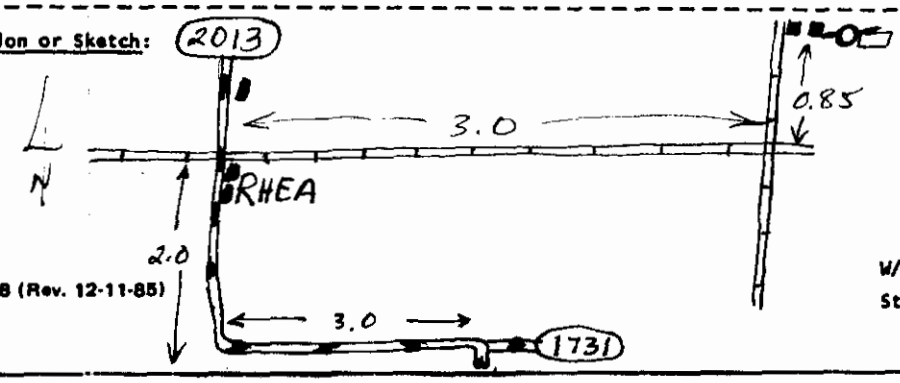
_____ ft. rept. meas. _____ 19___ above below _____ which is _____ ft. above below Land Surface

14. Use: Dom., Stock, Public Supply, Ind., Irr., Observation, Other (Test Hole, Oil Test, etc.) _____

15. Recorded by: DAN SEALE Source of data: Field & Hand Files Date: 8-14-86

16. Remarks: A-2-1

17. Location or Sketch:



W/L Obs. Well ___ W/Q Obs. Well ✓

State Well No. 10 - 17 - 603

TWDB-0308 (Rev. 12-11-85)

Typewrite (Black ribbon) or Print Plainly
(soft pencil or black ink)
Do not use ball point pen

Texas Department of Health Laboratories
1100 West 49th Street
Austin, Texas 78756

TWDB ONLY

Organization No. _____ Lab No. [ ]

Work No. 03-6304

CHEMICAL WATER ANALYSIS REPORT

Send Reply To:

Water Availability Data and Studies Section
Texas Water Development Board
Stephen F. Austin Building
1700 Congress Ave.
Austin, Texas 78711

Attn: _____ Rm. _____

County 185 PARMER

State Well No. 10-17-603

A-2-1 Well No. _____

Date Collected 08-12-86

Owner DONALD DALE ___ Send copy to owner Sample No. [ ] By DAN SEALE HPUWCD #1

Address HCR 2, Box 119 FRIONA Tx Well Location NW Sec 9, Sub. B, RHGN

Date Drilled _____ Depth _____ ft. WBF OGALLALA Source (type of well) _____

Producing intervals _____ Water level _____ ft. Sample depth [ ] ft.

Sampled after pumping 10 minutes hrs. Yield _____ GPM meas. est. Temperature [ ] °F [ ] °C

Point of collection faucet at PRESSURE TANK Appearance ☒ clear ☐ turbid ☐ colored ☐ other

Use DOMESTIC Remarks _____

(FOR LABORATORY USE ONLY)

CHEMICAL ANALYSIS

Laboratory [redacted] Date Received AUG 19 '86 Date Reported SEP 05 '86

KEY PUNCHED

WATER ANALYSIS

State Well No:10-17-6 Date:090486 Sample No:EB6-1898

	MG/L	ME/L		MG/L	ME/L
Silica:00955:	34		Carbonate:00445:	0	0
Calcium:00910:	34	1.70	Bicarbonate:00440:	264	4.32
Magnesium:00920:	20	1.64	Sulfate:00945:	17	.35
Sodium:00929:	37	1.61	Chloride:00940:	8	.23
Potassium:00937:	4.0	.10	Fluoride:00951:	1.7	.09
T.Cations		5.05	Nitrate as NO3:71850:	8.24	.13
Manganese:01055:			T. Anions		5.12
			pH:00403:	8.1	
Boron:01022:					
			180 deg TDS:70300:	295	
Total Iron:01045:			P. Alk.:00415:	0	
			T. Alk.:00410:	216	
(Specific Cond.:00095:		431	T. Hardness:00900:	167	

%Na _____

SAR _____

RSC _____

Other _____

Diluted Conductance (micromhos/cm3)
3 x164 =492

__ items will be analyzed if checked.

Ammonia-N:00610:
Nitrite-N:00615:
Nitrate-N:00620:
OrganicNitrogen:00605:

TWDB-0811 (Rev.02-27-86)

Water Quality Sampling Run

SWN: 10-17-603
County: Parmer
Aquifer(s): Ogallala

Name: Donald Dale
Address: ACRZ · Box 119
Friona TX 79035

Sample No. 530
Date: 3/20/90
By: C. Martz

	Bottle 1	Bottle 2	Bottle 3	Bottle 4	Bottle 5	Bottle 6	Bottle 7	Total SUB-Samples
	1 liter Anions	1 liter Cations	1 liter Radioactivity	500 ml Nitrate	1 Qt.(glass) (TOC)Organics			
Preserve with:		2 ml HNO_3 (Nitric)	2 ml HNO_3 (Nitric)	1 ml H_2SO_4 (Sulfuric)				All filtered unless otherwise stipulated. All on ice.

Water Level — LSD Remark —
Temperature (00010) 14.9 c
Specific Conductance (00094) 416 umhos/cm
pH (00400) 7.66
Eh (00090) 148.6 mv.
Phenol ALK (82244) 0 mg/l
Total ALK (39086) 213 mg/l
Carbonate (00452) meq/l 0 mg/l
Bicarbonate (00453) 4.26 meq/l 259.93 mg/l
Total Cations(+)
Total Anions (-)
Total Hardness (46570) 180
Dissolved Solids(70301) 295

Time in: 11:25
Time out: 12:20
Weather Mild
Outside Temp: 50
Sampling point: f.a.w

Starting pH 7.77
10.65 ml. of 0.02N to
50 ml. of Sample
Ending pH 4.53

Time:	11:35	11:47	11:51	12:00		
pH:	7.72	7.68	7.66			
Temp:	12.9	12.6	14.9			
Eh:				148.6		
Cond.	408	415	416			

ml.	pH	ml.	pH	ml.	pH
1.0	7.26	10.65	4.53		
2.0	6.98				
3.0	6.78				
4.0	6.63				
5.0	6.46				
6.0	6.27				
7.0	6.12				
8.0	5.92				
9.0	5.67				
10.0	5.24				

other notes:

THE POWER TO MAKE A DIFFERENCE.

ENVIRONMENTAL LABORATORY SERVICES
FINAL ANALYSIS REPORT

LAB ID: 9607484 SAMPLE DESCRIPTION: Groundwater
FACILITY: TWDB SAMPLE DATE: 03/20/96
ACCT NO: TWDB-PHIL NORDSTROM SAMPLE TIME: 1245

DATE RECEIVED: 03/29/96
ORIGINAL DATE REPORTED: 04/18/96

LOCATION ID: 10-17-603

PARAMETER	RESULTS	UNITS	STORET #	PQL in WATER	DATE ANALYZED
Alkalinity, Phenol.	<1	mg/L	00415	1	04/02/96
Alkalinity, Total	199	mg/L	00410	1	04/02/96
Bromide	0.05	mg/L	71870	0.05	03/29/96
Chloride	7.0	mg/L	00941	0.5	03/29/96
Fluoride	1.61	mg/L	00950	0.05	03/29/96
Nit.,Nitrate/Nitrite	1.927	mg/L	00630	0.005	03/29/96
Nitrogen, Kjeldahl	1.838	mg/L	00623	0.010	04/11/96
Nitrogen, ammonia	0.051	mg/L	00608	0.010	04/08/96
Silica	32.25	mg/L	00955	0.01	04/15/96
Sulfate	14.7	mg/L	00946	0.5	03/29/96
Aluminum, Dis. ICPMS	6.4	ug/L	01106	1.0	04/11/96
Antimony, Dis. ICPMS	<1.0	ug/L	01095	1.0	04/11/96
Arsenic, Diss. ICPMS	3.7	ug/L	01000	1.0	04/11/96
Barium, Diss. ICPMS	72.4	ug/L	01005	1.0	04/11/96
Beryllium, Dis ICPMS	<1.0	ug/L	01010	1.0	04/11/96
Boron, Diss. ICPMS	101.6	ug/L	01020	1.0	04/11/96
Calcium, Dissolved	33.19	mg/L	00915	0.02	04/01/96
Cobalt, Diss. ICPMS	<1.0	ug/L	01035	1.0	04/11/96
Copper, Diss. ICPMS	4.7	ug/L	01040	1.0	04/11/96
Iron, Diss. ICPMS	<5.0	ug/L	01046	4.0	04/01/96
Lead, Diss. ICPMS	<1.0	ug/L	01049	1.0	04/11/96
Lithium, Diss. ICPMS	54.4	ug/L	01130	1.0	04/11/96
Magnesium, Dissolved	23.24	mg/L	00925	0.05	04/01/96
Manganese, Dis ICPMS	<1.0	ug/L	01056	1.0	04/11/96
Molybdenum Dis ICPMS	2.6	ug/L	01060	1.0	04/11/96
Nickel, Diss. ICPMS	13.8	ug/L	01065	1.0	04/11/96
Potassium, Dissolved	4.85	mg/L	00935	1.00	04/01/96
Selenium, Dis. ICPMS	<5.0	ug/L	01145	4.0	04/11/96
Sodium, Dissolved	38.12	mg/L	00930	0.10	04/01/96
Strontium, Dis ICPMS	830.0	ug/L	01080	1.0	04/01/96
Thallium, Diss ICPMS	<1.0	ug/L	01057	1.0	04/11/96
Vanadium, Diss ICPMS	29.5	ug/L	01085	1.0	04/11/96

BUCK HENDERSON
LABORATORY MANAGER

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The mission of the Lower Colorado River Authority (LCRA) is to provide reliable, low-cost utility and public services in partnership with our customers and communities and to use our leadership role and environmental authority to ensure the protection and constructive use of the area's natural resources. The LCRA is a Texas conservation and reclamation district operating with no taxing authority.

P.O. BOX 220 AUSTIN, TX 78767-0220 (512) 473-3200 (512) 3298 FAX

THE POWER TO MAKE A DIFFERENCE.

ENVIRONMENTAL LABORATORY SERVICES
FINAL ANALYSIS REPORT

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FACILITY: TWDB SAMPLE DATE: 03/20/96
ACCT NO: TWDB-PHIL NORDSTROM SAMPLE TIME: 1245

DATE RECEIVED: 03/29/96
ORIGINAL DATE REPORTED: 04/18/96

LOCATION ID: 10-17-603

PARAMETER	RESULTS	UNITS	STORET #	PQL in WATER	DATE ANALYZED
Zinc, Diss. ICPMS	60.5	ug/L	01090	1.0	04/11/96

COMMENTS: Strontium and Iron analyzed by ICP.

Roland Garcia for

BUCK HENDERSON
LABORATORY MANAGER

QA APPROVED

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LCRA Environmental Laboratory Services

Date: *16-Aug-00*

CLIENT: Texas Water Development Board **Client Sample ID:** 10-17-603
Lab Order: 0007086 **COC ID:** 13913
Project: TWDB 9/99 thru 8/00 **Collection Date:** 07/12/2000 12:20:00 PM
Lab ID: 0007086-08 **Matrix:** GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	QC Batch	Date Analyzed
ICP METALS, DISSOLVED		**E200.7**					Analyst: **BL**
Calcium	31.5	0.200		mg/L	1	R5229	08/01/2000
Magnesium	22.6	0.200		mg/L	1	R5229	08/01/2000
Potassium	4.74	0.200		mg/L	1	R5229	08/01/2000
Sodium	35.0	0.700		mg/L	1	R5229	08/01/2000
ICP METALS, DISSOLVED		**E200.7**					Analyst: **BL**
Boron	100	50.0		µg/L	1	R5230	08/01/2000
Iron	ND	50.0		µg/L	1	R5230	08/01/2000
Strontium	829	20.0		µg/L	1	R5230	08/01/2000
ICPMS METALS, DISSOLVED		**E200.8**					Analyst: **PJM**
Aluminum	ND	4.00		µg/L	1	R5183	07/28/2000
Antimony	ND	1.00		µg/L	1	R5183	07/28/2000
Arsenic	3.28	2.00		µg/L	1	R5183	07/28/2000
Barium	67.4	1.00		µg/L	1	R5183	07/28/2000
Beryllium	ND	1.00		µg/L	1	R5183	07/28/2000
Cadmium	ND	1.00		µg/L	1	R5183	07/28/2000
Chromium	3.28	1.00		µg/L	1	R5183	07/28/2000
Cobalt	ND	1.00		µg/L	1	R5183	07/28/2000
Copper	2.54	2.00		µg/L	1	R5183	07/28/2000
Lead	ND	1.00		µg/L	1	R5183	07/28/2000
Lithium	61.4	2.00		µg/L	1	R5183	07/28/2000
Manganese	ND	1.00		µg/L	1	R5183	07/28/2000
Molybdenum	1.68	1.00		µg/L	1	R5183	07/28/2000
Nickel	ND	1.00		µg/L	1	R5183	07/28/2000
Selenium	ND	4.00		µg/L	1	R5183	07/28/2000
Thallium	ND	1.00		µg/L	1	R5183	07/28/2000
Vanadium	19.6	1.00		µg/L	1	R5183	07/28/2000
Zinc	39.1	4.00		µg/L	1	R5183	07/28/2000
ANIONS BY ION CHROMATOGRAPHY		**E300**					Analyst: **AMJ**
Bromide	0.0600	0.0200		mg/L	1	R5091	07/19/2000
Chloride	7.97	1.50		mg/L	1	R5091	07/19/2000
Fluoride	1.67	0.0100		mg/L	1	R5091	07/19/2000
Sulfate	16.4	1.50		mg/L	1	R5091	07/19/2000
ALKALINITY		**M2320 B**					Analyst: **WR**
Alkalinity, Phenolphthalein	ND	0		mg/L CaCO3	1	R5017	07/18/2000
Alkalinity, Total (As CaCO3)	212	2.00		mg/L CaCO3	1	R5017	07/18/2000
CATION/ANION BALANCE		**CALCULATION**					Analyst: **AMJ**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

LCRA Environmental Laboratory Services

Date: *16-Aug-00*

CLIENT: Texas Water Development Board
Client Sample ID: 10-17-603
Lab Order: 0007086 **COC ID:** 13913
Project: TWDB 9/99 thru 8/00
Collection Date: 07/12/2000 12:20:00 PM
Lab ID: 0007086-08
Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	QC Batch	Date Analyzed
Cation/Anion Balance	Balanced	0		Date	1	R5301	08/07/2000
NITRATE AND NITRITE		**E353.2**					Analyst: **CL**
Nitrogen, Nitrate & Nitrite	1.89	0.0200		mg/L	1	R5034A	07/19/2000
SILICA		**E370.1**					Analyst: **CL**
Silica, Dissolved (as SiO2)	36.8	0.500		mg/L	1	R5008A	07/18/2000

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

TWDB Water Quality Field Data Sheet

New Well: yes / no

Send Results To: Owner / Lessee / DO NOT SEND

Type of Sample: LCRA / HACH

State Well Number: 16-17-603

County: PARMER

County Code: 369

Aquifer Code: 121 OGLL

Aquifer Id: 21

Owner's Name: ALAN + CASEY CARSON

Lessee's Name:

Attention:

Mailing Address: HCR 2 Box 119
FRIONA TX 79035

Well Number:

Sample Number: 891

Date: 7-12-2000

Sampler(s): John ASENSIO

Daily Meter Calibration:

pH	7	7.02
	4 or 10	10.04
Conductivity	500	505
	1000	
	2000	
	5000	

Add enough of the proper acid to each bottle that is preserved to drop the pH to 2.

1 (on ice)	2	3 (on ice)	4(on ice	5
500ml (filtered)	500ml (filtered)	250ml (filtered)	40 ml (not filtered)	1 gallon (filtered)
Anions / Total Alkalinity	Cations	Nitrate/Nitrite	Atrazine	Radioactivity
no preservative	1ml Nitric (HNO3)	0.5 ml Sulfuric (H2SO4)	no preservative	10 ml Nitric (HNO3)

Time In: 12:00

Time Out: 12:40

W. L. depth from LSD (ft.): Dtm

W.L. remark: 41

Pumping Since: arrival

Sampling Point: faucet at well

Well Use: DOMESTIC/STOCK

Lift: SUMB

Power: ELEC

Latitude: 34 41 02 N

Longitude: 102 53 39 W

Elevation: 4147 ft.

Sample Time: 12:20

Filter pressure: hand / line

Field Alkalinity Titration:

7.34 Start pH 4.50 End pH

50 **ml. Sample Size**

11.7 ml. Acid added for Total

0 ml. Acid added for Phenol

Items below calculated from ml. acid added data:

Field Total Alkalinity: 234.0 mg/L

Field Phenol Alkalinity: 0 mg/L

Notes:

W. Q. Stabilization Parameters Table

				Final Readings:
Time:	12:10		12:15	12:20
pH:	7.24		7.34	7.34
Temperature:	19.6		19.4	19.4
Conductivity:	471		474	474
Conductivity Temperature:	19.6		19.4	19.4

Items Below Calculated Later From Results:

Total Hardness: 175

Calculated TDS (mg/L): 296

B

Data Entered By Sampler Into Database: yes / no

v:\HEMon\Gmdwat\WaterQuality\wqfds-master.xls

revised 6/7/00