

ATTACHMENT A

Test Well No. 6 Report prepared by American Water Well Systems dated December 19,
2007



Wells • Pumps
Commercial
Municipal
Residential

P. O. Box 300 • Seaford, DE 19973
(302) 629-3796 • FAX (302) 629-5118

December 19, 2007

Vincent Luciani, PE
George, Miles & Buhr, LLC
700 High Street
Seaford, DE 19973

Re: Town of Denton – Well #6

Dear Mr. Luciani:

Enclosed please find six Technical Data Booklets for the #6 Test Well at Denton. In the booklets are the following:

- Copy of permit from Caroline County
- Copy of Drillers Log
- Copy of Electric Log
- Copy of 24 hr Pump Test
- Copy of 12 hr Recovery Test

We are waiting on the results for the sieve analysis and the water analysis. Thank you very much.

Respectfully yours,

A handwritten signature in cursive script that reads 'John A. McFarland'.

John A. McFarland
President

APPLICATION FOR PERMIT TO DRILL WELL

please type

CO-95-0443

fill in this form completely

Date Received (APA)

10-31-07

OWNER INFORMATION

8 MM DD YY 13

70-95-0443

650 Legion Rd

Denton MD 21639

DRILLER INFORMATION

John A McFarland MS D 1986

American Water Well Systems, Inc.

300 Scotard, Rt. 111 #3

John A. McFarland 10/31/07

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
I INDUSTRIAL, COMMERCIAL, DEWATERING
P PUBLIC WATER SUPPLY WELL
X TEST, OBSERVATION, MONITORING
G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 600 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

Bored (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
D THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER

PERMIT No. CO-95-0443

SPECIAL CONDITIONS

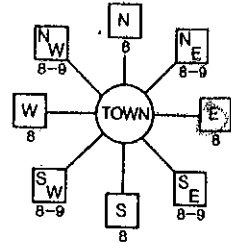
NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

B 3

LOCATION OF WELL



TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



DISTANCE FROM ROAD ENTER FT OR MI

TAX MAP: 114 BLK: 3 PARCEL 4153

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

CALVERT COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED

CO SIGNATURE EXP. DATE

NORTH GRID EAST GRID

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

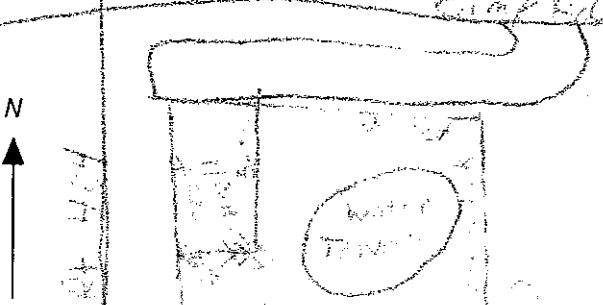
SOURCES OF DRILLING WATER

- 1. Awn 5 Strip
2. Awn 5 Tank
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1130 N 380

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION





DRILLERS LOG

CUSTOMER	TOWN OF DENTON	JOB#	
ADDRESS	CAMP ROAD	DATE	11/28/07
LOCATION	DENTON, MD		

GROUND		FT FROM GROUND SURFACE 0 TO	WELL LOG
0			
T O T A L D E P T H	C A S I N G	0-1	TOPSOIL
		1-9	TAN SAND (FINE TO COARSE)
		9-23	ORANGE SAND WITH STONES & GRAVEL
		23-111	GRAY CLAY, TAN CLAY, BIG STONES
		111-137	GRAY CLAY, GRAY SAND, SHELLS 50%
		137-221	GRAY SAND & SHELLS (HARD LAYER)
		221-263	GRAY CLAY
		263-290	GRAY CLAY, GRAY SAND (50%)
		290-360	GRAY CLAY, SHELLS (50%)
		360-465	GRAY SAND, BLACK SAND, GREEN SAND, 5% SHELLS
		465-490	GREEN PEPPER SAND, GRAY CLAY, BROWN CLAY 5%
490-540	BROWN CLAY, SHELLS, GRAY CLAY		
365'			
screen			
465'			

WELL NO	6	PUMPED WITH	PUMP	SLOT SIZE	.020
WELL DIAMETER	4"	CASING DIAMETER	4"	SCREEN DIAMETER	4"
WELL DEPTH	465'	CASING TYPE	PVC SCH 40	SCREEN TYPE	PVC SCH 40
STATIC LEVEL	97.6	CASING DEPTH	365'	SCREEN LENGTH	100'
PUMPING LEVEL	133.17	GROUT TYPE	CLAY	GRAVEL SIZE	#2
TEST CAPACITY	76 GPM	GROUT DEPTH	253-0	GRAVEL DEPTH	253-465
SPEC CAPACITY		GROUT AMOUNT	37 BAGS	GRAVEL AMT	78 BAGS
HRS PUMPED	24 HRS	DRILL RIG	MIDWAY 1500		

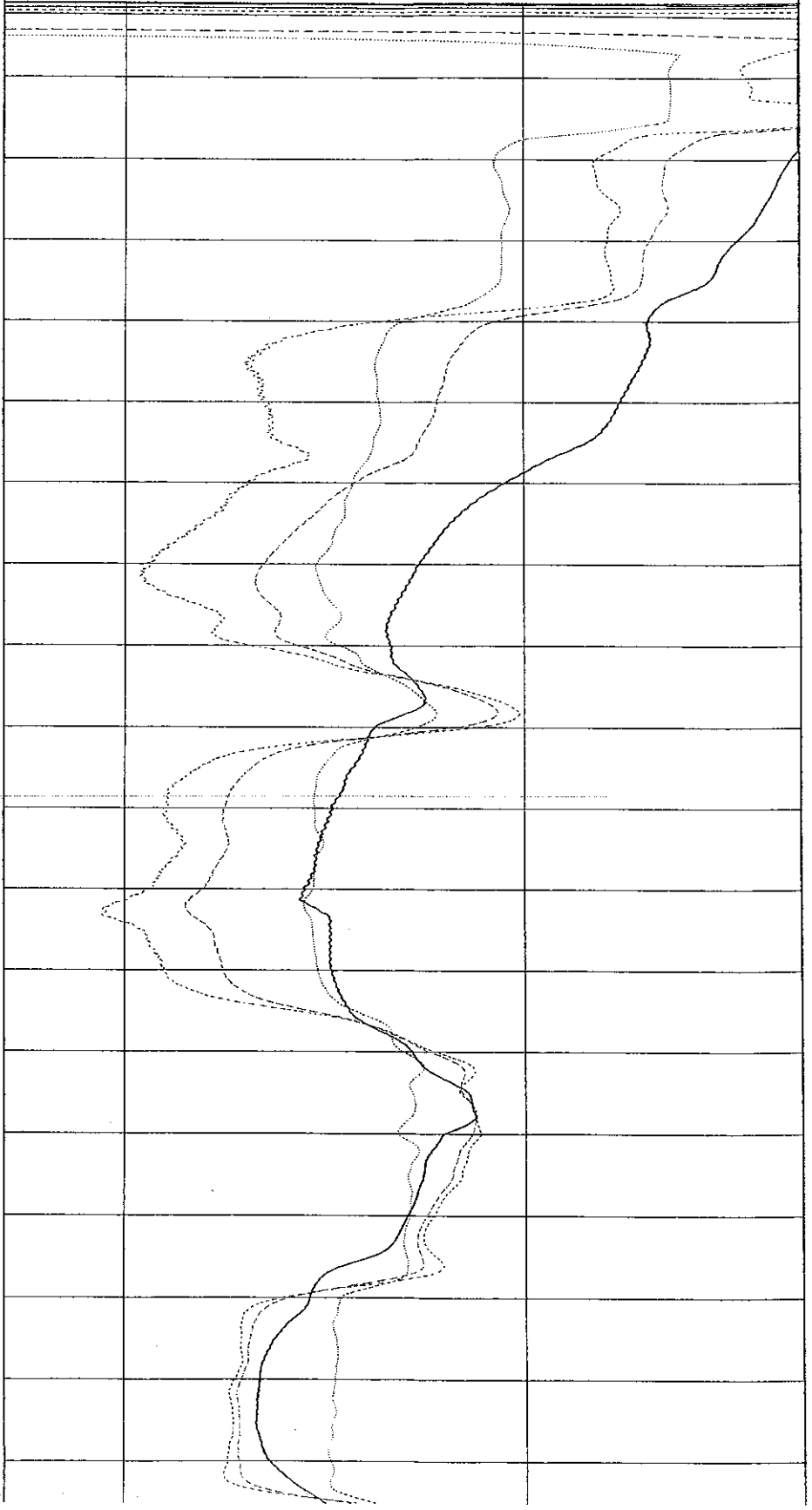
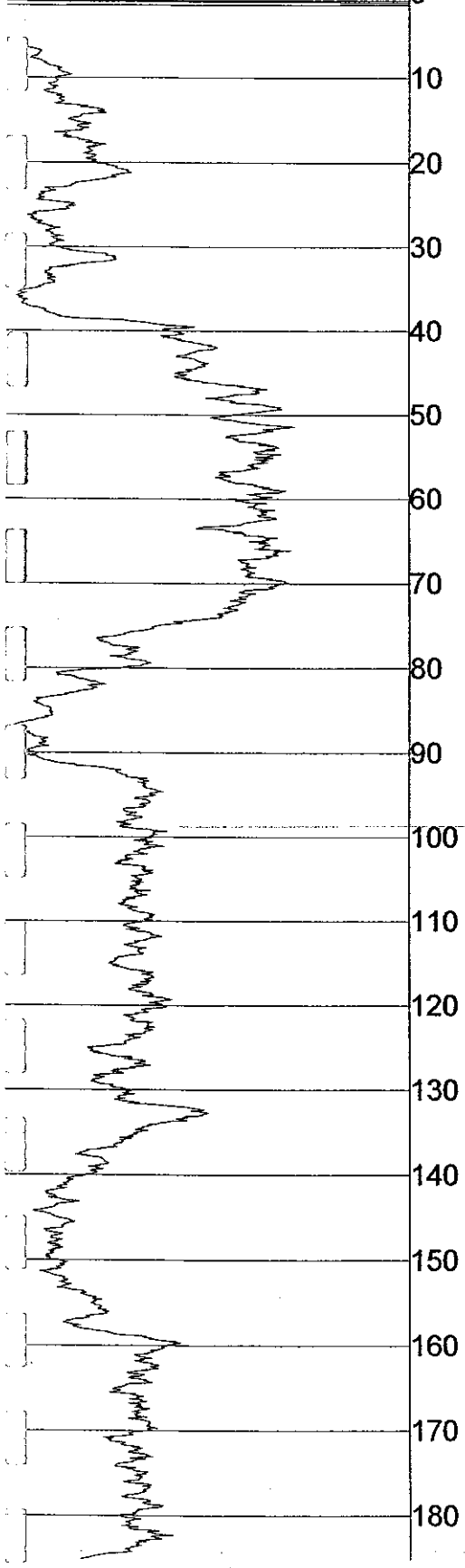
PERMIT#	CO-95-0443	FOREMAN	CHRIS MCFARLAND	HELPER	J.R. TASCHLER CARL CHANCE TIM DEGROAT
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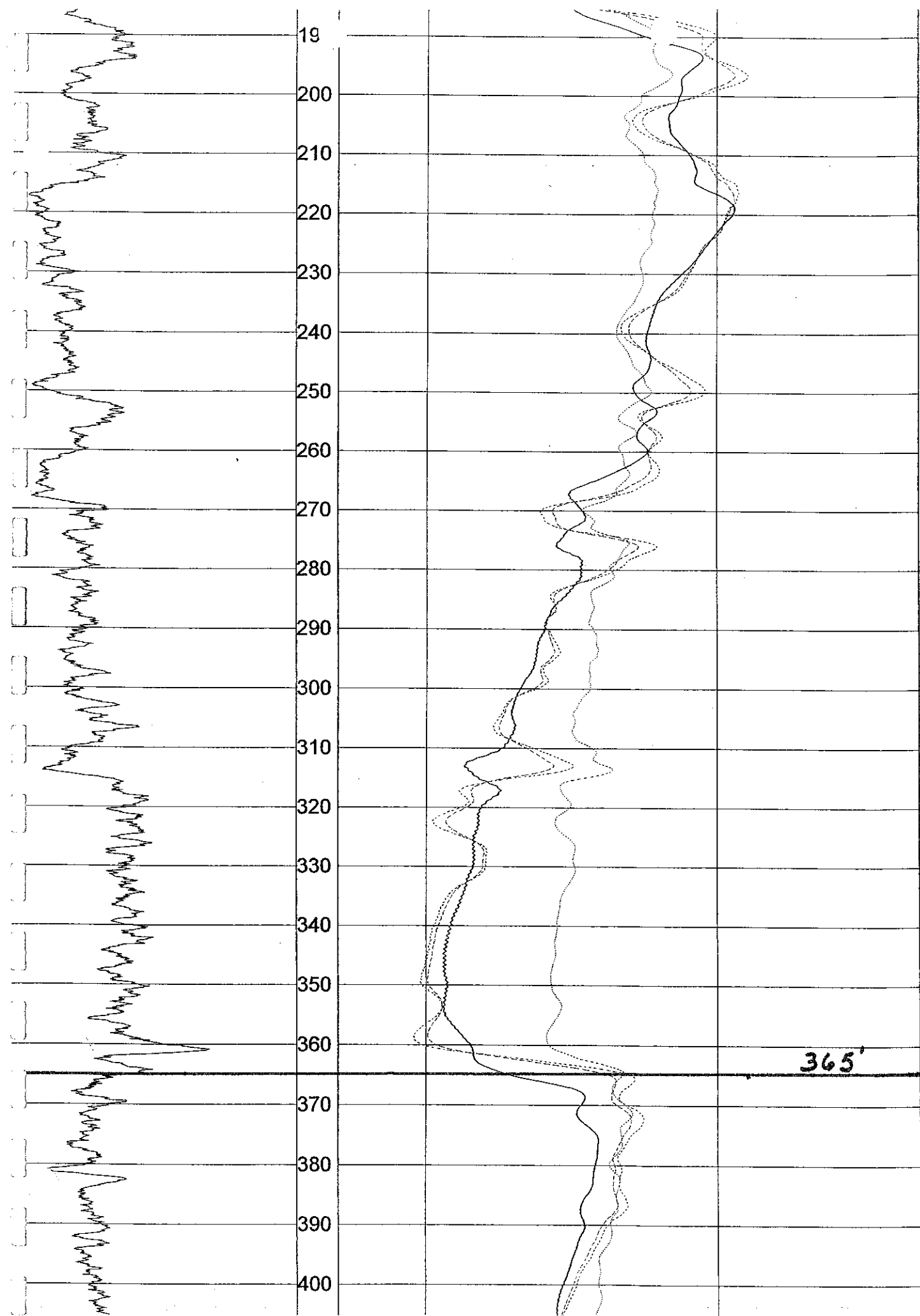
FEET
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180

LATERAL
OHM-M 500
RES
OHM 500
RES(64N)
OHM-M 500
RES(16N)
OHM-M 500

GAMMA

API-GR 150





41
420
430
440
450
460
470
480
490
500
510
520
530
540

465'

API-GR

150

GAMMA

OHM-M

500

RES(16N)

OHM-M

500

RES(64N)

OHM

500

RES

OHM-M

500

FEET

LATERAL

PUMP TEST
TEST DATE 12/10/07

	Customer	Town of Denton		
	Well#	6	Static	97.60
CLOCK TIME	MINUTE INTERVAL	WATER LEVEL	DRAW DOWN	SPECIFIC CAPACITY
6.01	1	130.80	33.20	2.29
6.02	2	135.00	37.40	2.03
6.03	3	135.39	37.79	2.01
6.04	4	135.41	37.81	2.01
6.05	5	132.10	34.50	2.20
6.06	6	132.13	34.53	2.20
6.07	7	132.60	35.00	2.17
6.08	8	131.73	34.13	2.23
6.09	9	131.68	34.08	2.23
6.10	10	131.75	34.15	2.23
6.15	15	131.75	34.15	2.23
6.20	20	131.77	34.17	2.22
6.25	25	131.77	34.17	2.22
6.30	30	131.70	34.10	2.23
6.40	40	131.70	34.10	2.23
6.50	50	131.70	34.10	2.23
7.00	60	131.70	34.10	2.23
7.15	75	131.69	34.09	2.23
7.30	90	131.67	34.07	2.23
7.45	105	131.70	34.10	2.23
8.00	120	131.79	34.19	2.22
8.15	135	131.79	34.19	2.22
8.30	150	131.83	34.23	2.22
8.45	165	131.85	34.25	2.22
9.00	180	131.89	34.29	2.22
9.15	195	131.93	34.33	2.21
9.30	210	132.00	34.40	2.21
9.45	225	132.00	34.40	2.21
10.00	240	132.05	34.45	2.21
10.30	270	132.11	34.51	2.20
11.00	300	132.12	34.52	2.20
11.30	330	132.20	34.60	2.20
12.00	360	132.25	34.65	2.19
12.30	390	132.25	34.65	2.19
1.00	420	132.35	34.75	2.19
1.30	450	132.35	34.75	2.19
2.00	480	132.45	34.85	2.18
2.30	510	132.43	34.83	2.18
3.00	540	132.64	35.04	2.17
3.30	570	132.68	35.08	2.17
4.00	600	132.67	35.07	2.17
4.30	630	132.70	35.10	2.17
5.00	660	132.79	35.19	2.16
5.30	690	132.80	35.20	2.16
6.00	720	132.84	35.24	2.16
6.30	750	132.83	35.23	2.16
7.00	780	132.84	35.24	2.16
7.30	810	132.86	35.26	2.16

PUMP TEST
TEST DATE 12/10/07

CLOCK TIME	MINUTE INTERVAL	WATER LEVEL	DRAW DOWN	SPECIFIC CAPACITY
	Customer	Town of Denton		
	Well#	6	Static	97.60
8.00	840	132.93	35.33	2.15
8.30	870	132.95	35.35	2.15
9.00	900	133.00	35.40	2.15
9.30	930	133.01	35.41	2.15
10.00	960	133.09	35.49	2.14
10.30	990	133.05	35.45	2.14
11.00	1020	133.07	35.47	2.14
11.30	1050	133.08	35.48	2.14
12.00	1080	133.10	35.50	2.14
12.30	1110	133.10	35.50	2.14
1.00	1140	133.10	35.50	2.14
1.30	1170	133.13	35.53	2.14
2.00	1200	133.14	35.54	2.14
2.30	1230	133.20	35.60	2.13
3.00	1260	133.13	35.53	2.14
3.30	1290	133.11	35.51	2.14
4.00	1320	133.12	35.52	2.14
4.30	1350	133.15	35.55	2.14
5.00	1380	133.15	35.55	2.14
5.30	1410	133.17	35.57	2.14
6.00	1440	133.17	35.57	2.14