SAN ANTONIO WATER SYSTEM PURCHASING DEPARTMENT

Issued By: D. Anthony Rubin **Date Issued: August 21, 2013**
BID NO.: 13-1508

FORMAL INVITATION FOR BIDS
CONTRACT FOR TO PERFORM WELL PLUGGING SERVICES UPON SAWS DIRECTION IN AREAS DESIGNATED BY SAWS
ADDENDUM NO. 1

Sealed bids addressed to the Purchasing Director, San Antonio Water System, 2800 US Hwy 281 North, Administration Bldg., 5th Floor, P.O. Box 2449, San Antonio, TX 78298-2449 will be received until **3:00 p.m., September 4, 2013** and then publicly opened and read aloud for furnishing materials or services as described herein below,

The San Antonio Water System Purchasing Department is willing to assist any bidder(s) in the interpretation of bid provisions or explanation of how bid forms are to be completed. Assistance may be received by visiting the Purchasing Office in the SAWS Main Office, 2800 US Hwy 281 North, San Antonio, TX 78212, or by calling (210) 233-3819.

This invitation includes the following:

Invitation for Bids	Specifications and General Requirements
Terms and Conditions of Invitation for Bids	Price Schedule

The undersigned, by his/her signature, represents that he/she is authorized to bind the Bidder to fully comply with the Specifications and General Requirements for the amount(s) shown on the accompanying bid sheet(s). By signing below, Bidder has read the entire document and agreed to the terms therein.

Signer's Name: _____ Firm Name: _____
(Please Print or Type)

Address: _____

_____
Signature of Person Authorized to Sign Bid City, State, Zip Code: _____

Email Address: _____ Telephone No.: _____

Fax No.: _____

Please complete the following:
Prompt Payment Discount: _____% _____days. (If no discount is offered, Net 30 will apply.)

Please check the following blanks which apply to your company:
Ownership of firm (51% or more):
___Non-minority ____Hispanic ___African-American ____Other Minority (specify) _____
___Female Owned ___Handicapped Owned ___Small Business (less than $1 million annual receipts or 100 employees)
Indicate Status: ___Partnership ___Corporation ____Sole Proprietorship ____Other (specify) _____
Tax Identification Number:_____

Addendum 1:
13-1508 DSP Well Plugging

Change the Bid opening date from **AUGUST 28, 2013, 3:00 P.M to SEPTEMBER 4, 2013, 3:00 P.M.**

Price schedules on pages 25-29 is replaced as per addendum.

Bidder can obtain a copy of the well logging records by contacting Jim O'Connor at (210) 233-3547 or email at jim.oconnor@saws.org with a copy to arubin@saws.org Well logging records will be made available upon request.

Additional questions pertaining to bid will be answered by D. Anthony Rubin at (210) 233-3815 or via e-mail arubin@saws.org . Questions must be must be submitted in writing and received by **August 23, 2013 by 2:00 PM**.

The following is a list Questions from Mandatory Pre-Bid Meeting held on August 16, 2013:

Question 1:

Can we change bid form to a per job plugging with well specifications as to size of casing and depth of well per well?

The pricing schedule has been changed so that each well will be priced individually. Pricing will provided lump sum per each site.

Question 2:

Can we change bid form to item #3 logging to a per each log?

Pricing schedule changed.

Question 3:

Is bid item #4 cleaning-airlifting or drilling?

The new price schedule does not address a preferred method, if applicable use the best practice method to get the job accomplish.

Question 4:

On page 23 of 43 needs to be changed to Pump Installer licensed or Drilling license.

Is no changed to read: Licensed Driller or Licensed Pump Installer

Question 5:

Several of the wells may have pumping equipment that will have to be removed. What will be the disposition of this equipment?

All equipment will be removed from the sites by the successful contractor.

Question 6:

Can the contractor take this? **Yes**

IT IS NECESSARY TO RETURN THIS ADDENDUM WITH YOUR BID

PRICE SCHEDULE

FIRST YEAR BASE BID

Item No.	Description	Qty	Unit Price	Total
1	Edwards Aquifer Well at 400 Fleetwood, well plugging and EAA permit	1 LS	$	$
2	Carrizo Well at 19260 Somerset Rd., well plugging and 2 hours of standby time for logging	1 LS	$	$
3	Trinity Well 078WP2 – 26803 Harmony Hills, Well Pulling and Plugging and 3 hours of standby time for logging and TGR Permit	1 LS	$	$
4	Trinity Well 076WP1 – 26802 harmony Hills, Well Plugging and TGR Permit	1 LS	$	$
5	Trinity Well 077WP1 – 26802 Harmony Hills, Well Plugging and TGR Permit	1 LS	$	$
6	Trinity Well 075WP1 – 26975 Timberline Dr., Well Plugging and TGR Permit	1 LS	$	$
7	Trinity Well 075WP2 – 26975 Timberline Dr., Well Plugging and TGR Permit	1 LS	$	$
8	Trinity Well 080WP2 – 802 Bestway Well Pulling and Plugging and 3 hours of standby time for logging and TGR Permit	1 LS	$	$
9	Carrizo Well 048WP4 – 4551 Oak South, Well Plugging	1 LS	$	$
10	Carrizo Well 045WP3 – 4370 Palo Alto, Well Plugging	1 LS	$	$
11	Wells 100WP1 and 100WP2 -13900 IH 35 South, Well Pulling and Plugging	1 LS	$	$
12	Carrizo Well 049WP3 – 2111 Silver Mountain, Well Plugging	1 LS	$	$
13	Well 171WP1 – Mansion, Well Plugging	1 LS	$	$
14	Edwards Aquifer Well 124WP1 – 1465 CR 38, Well casing Perforations and Well Plugging and EAA permit	1 LS	$	$
15	Edwards Aquifer Well 097WP1 – 13678 Remuda Ranch Well Plugging and EAA permit	1 LS	$	$
TOTAL COST				$

SUMMARY OF WORK AND GENERAL REQUIREMENTS:

SECTION: 23

A. DESCRIPTION OF WORK

Well at 400 Fleetwood

1. Work includes mobilization, cementing the open Glen Rose Formation to the bottom of the Edwards formation, setting gravel in the open Edwards formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Edwards Aquifer Authority Plugging Permit prior to plugging well.

   Well at 400 Fleetwood Description

   Date Drilled – 2006
   Total Depth – 605 feet
   Bottom of casing – 301 feet below land surface
   Casing diameter – 12.75 inches from surface to 301 feet below land surface
   Open Edwards formation – 301 feet to 427 feet below land surface
   Open Glen Rose formation – 427 feet to 605 feet below land surface
   Open hole diameter – 11 inches (see log for cement and gravel calculations)
   Water Level – estimate 340 feet below land surface
   (Geophysical log available) Map Attached

STATE OF TEXAS WELL REPORT for Tracking #88355

Owner:	**BexarMet Water District**	Owner Well #:	**1**
Address:	**2047 W. Malone San Antonio , TX 78255**	Grid #:	**68-29-1**
Well Location:	**400 Fleetwood Dr. San Antonio , TX**	Latitude:	**29° 35' 48" N**
Well County:	**Bexar**	Longitude:	**098° 29' 41" W**
Elevation:	**1030 ft.**	GPS Brand Used:	**Megelian 315**
Type of Work:	**New Well**	Proposed Use:	**Public Supply; Plans Approved by TCEQ**

Drilling Date: Started: **4/7/2006**
Completed: **7/23/2006**

Diameter of Hole: Diameter: **30 in From Surface To 28 ft**
Diameter: **16 in From 28 ft To 305 ft**
Diameter: **11 in From 305 ft To 606 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole Straight Wall**

Annular Seal Data: 1st Interval: **From 28 ft to 0 ft with 6 yds. grout (#sacks and material)**
2nd Interval: **From 304 ft to 0 ft with 534 sks cement (#sacks and material)**
3rd Interval: **No Data**
Method Used: **Internal & External Pressure Tremmie**
Cemented By: **Superior Well Services**
Distance to Septic Field or other Concentrated Contamination: **170+ ft**
Distance to Property Line: **10 ft**
Method of Verification: **Plat- Sannitary Easement**
Approved by Variance: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: Static level: **256 ft. below land surface on 7/5/2006**
Artesian flow: **No Data**

Packers: **N/A**

Plugging Info: Casing left in well: From (ft) To (ft) Cement/Bentonite left in well: From (ft) To (ft) Cem/Bent Sacks Used
N/a

Type Of Pump: **No Data**

Well Tests: **Pump**
Yield: **200 GPM with 171 ft drawdown after 12 hours**

Water Quality: Type of Water: **Rdwards**
Depth of Strata: **302 ft.**
Chemical Analysis Made: **Yes**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Alsay, Inc** **3359 S.E. Loop 410** **San Antonio , TX 78222**
Driller License Number:	**54636**
Licensed Well Driller Signature:	**Douglas B. Hill**
Registered Driller Apprentice Signature:	**Tye Newman**
Apprentice Registration Number:	**3029**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #88355) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 &-65 Lt. Brown & White LS
65-75 Fractured Tan LS
75-100 Tan Limestone
100-125 Dense Tan LS
125-240 Dense Tan to White LS w/flint
240-300 Dense Limestone
300-440 Fractured Lt. Tan LS
440-600 Dense Tan to Gray LS

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
12 3/4 new Steel-A53-Gr.B 304-+2 .375
20 new Steel 28-0 .250

GEO CAM

Water Well Logging & Video Recording Services

Geo Cam, Inc. 2038 Adobe Trail San Antonio, TX 210-495-9121

Borehole: FLEETWOOD#1

Logs: GAMMA, RESISTIVITY, FL. RES. & TEMP., CALIPER

Project: BEXARMET-HOLLYWOOD PARK **Date:** 06-13-06

Client: ALSAY, INC. County: BEXAR

Location(GPS): N 29* 35' 48.4", W 98* 29' 40.8" State: TX

BOREHOLE DATA

Drilling Contractor: ALSAY **Driller T.D.:** 606'

Elevation: EST. 1,030 GPS Logger T.D.: 606'

Depth Ref: G.L. Date Drilled: 06-13-06

BIT RECORD				CASING RECORD		
RUN	BIT SIZE	FROM	TO	SIZE/WGT/THK	FROM	
1	NA	0'	303'	12"	+2'	304'
2	9 7/8"	304'	606'	OPEN		
3						

Drill Method: AIR ROTARY Weight: **Fluid Level:** 269'

Hole Medium: Mud Type: Time Since Circ: 2 HRS.

Viscosity: Rm: at: Deg C

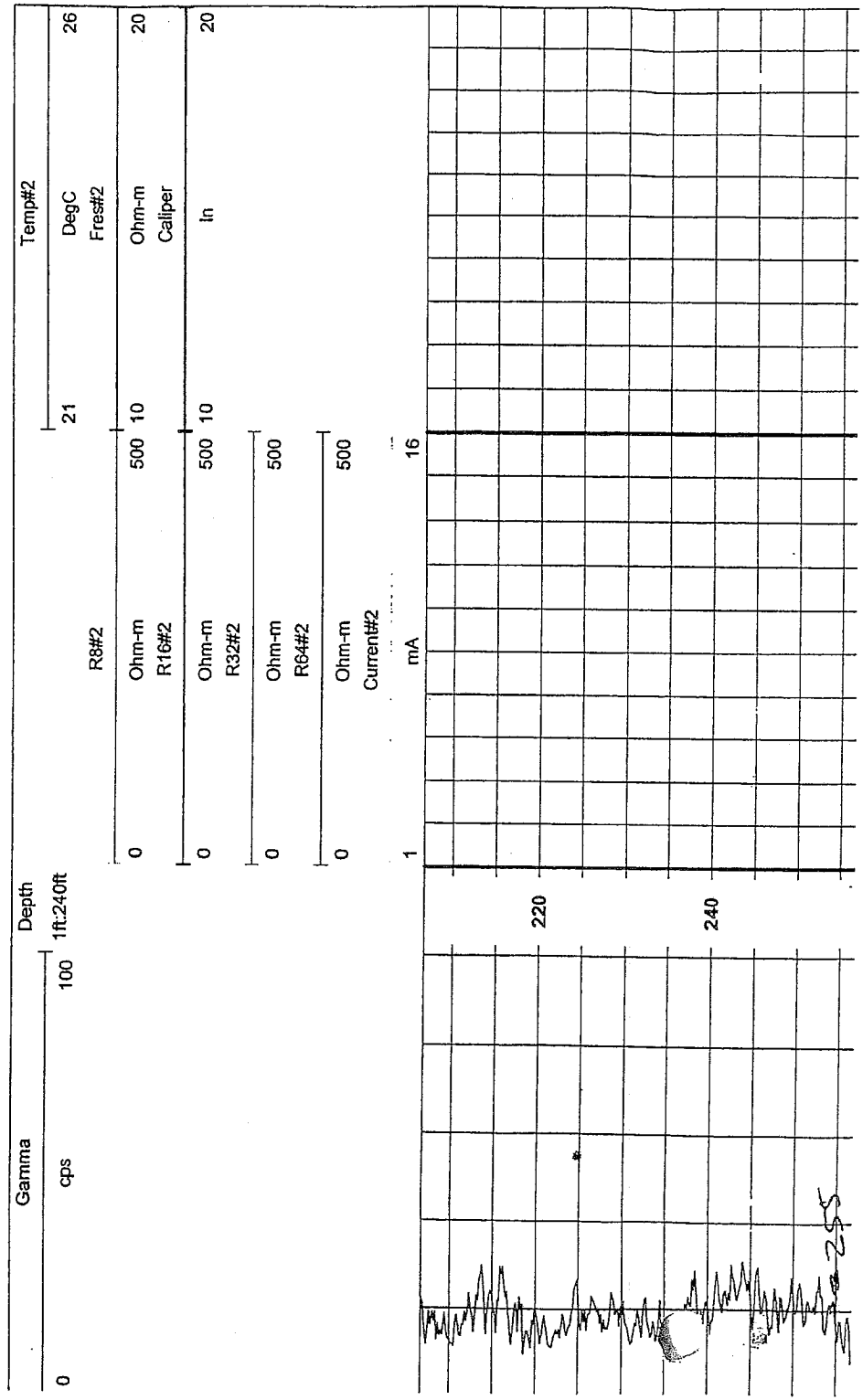
GENERAL DATA

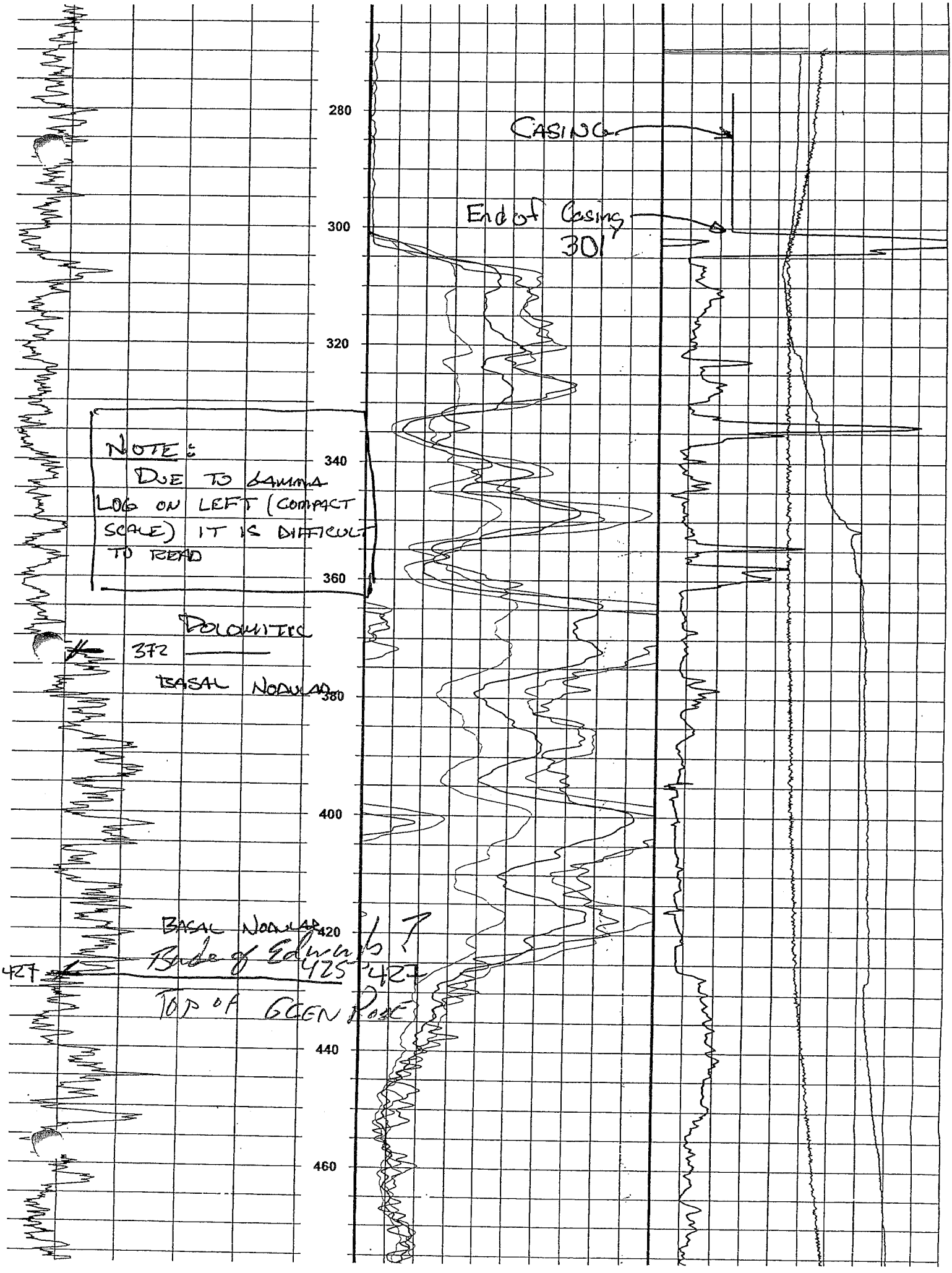
Logged by: Michael Miller Unit/Truck: 03

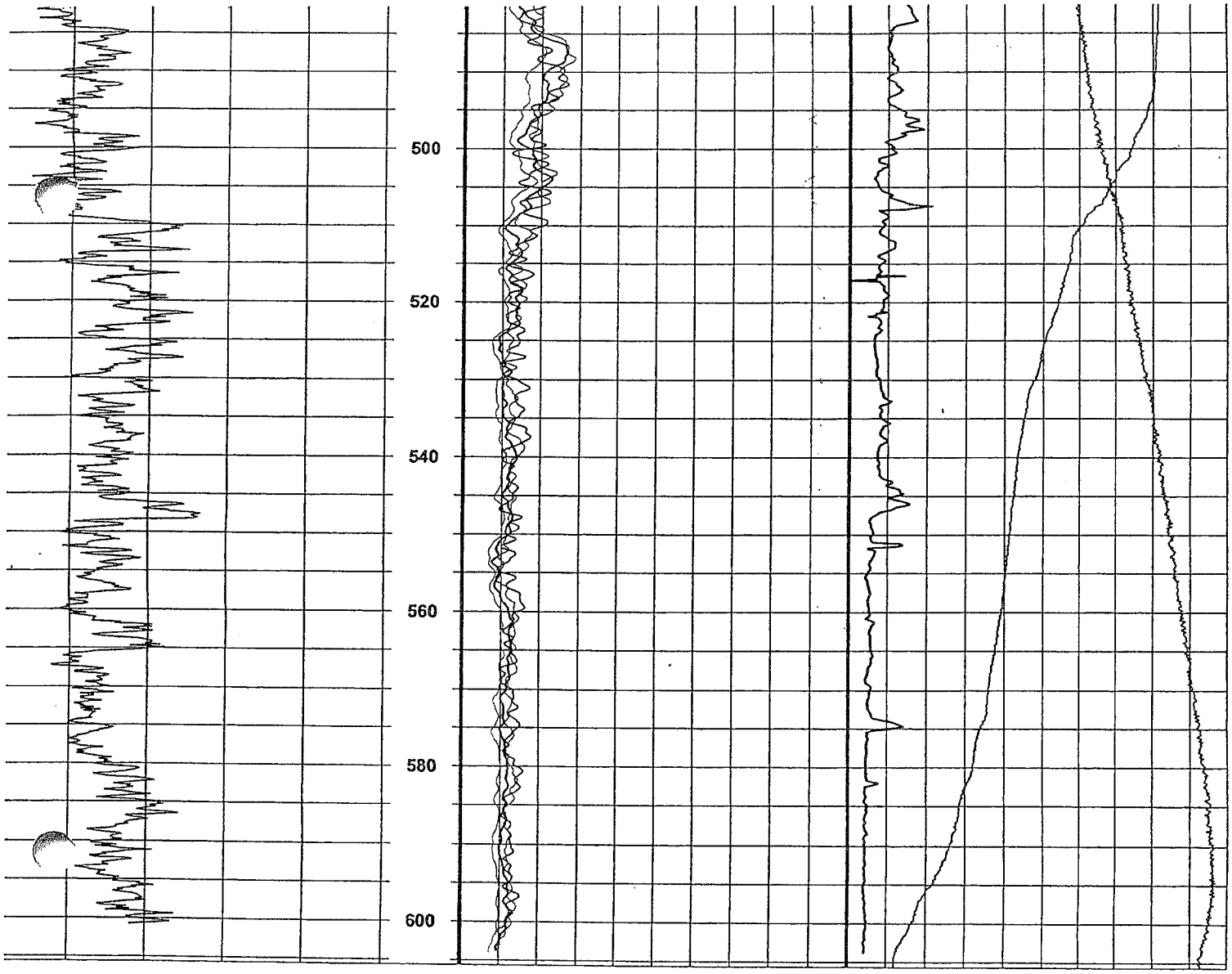
Witness: J. DELOUCHE, S. BELL

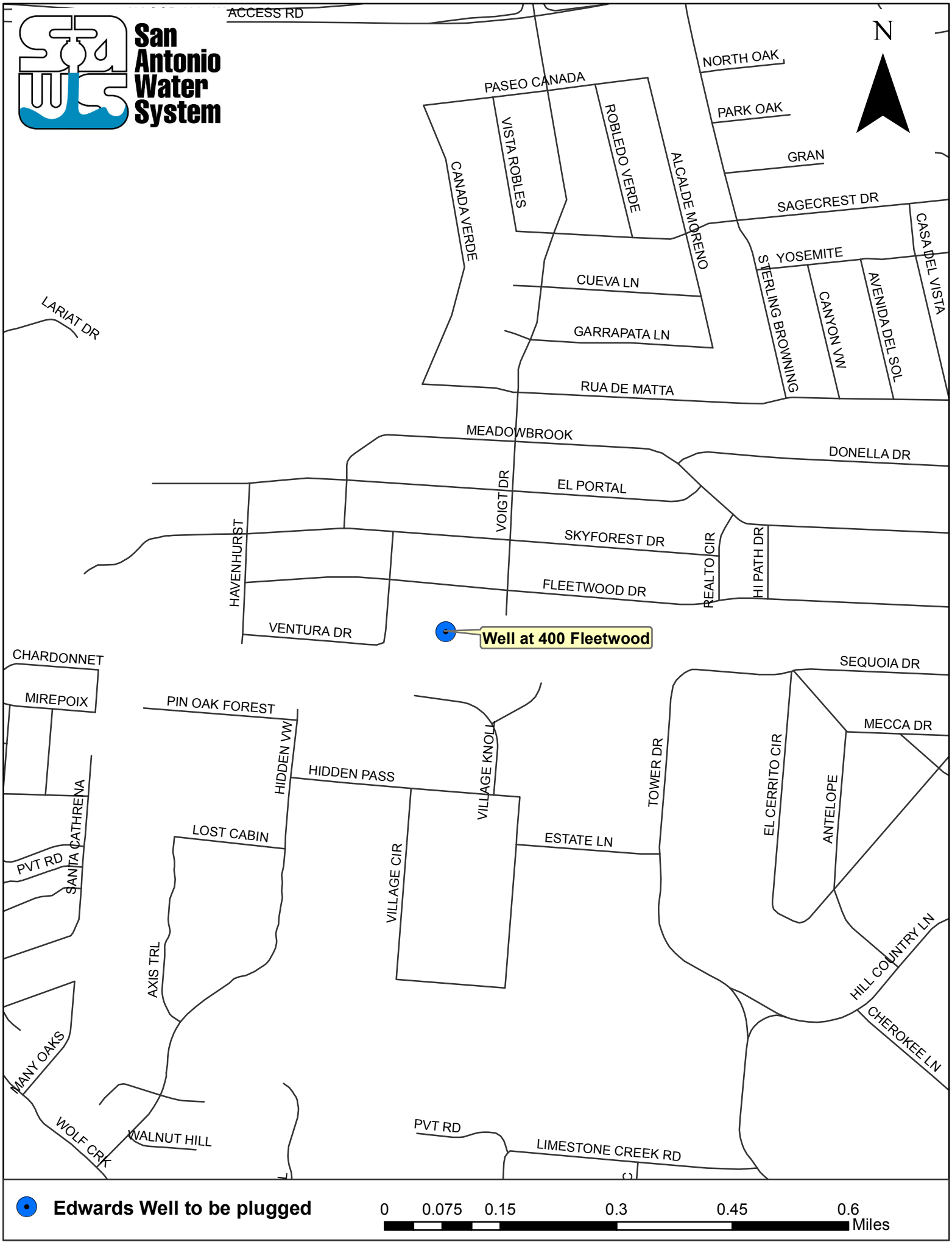
LOG TYPE	RUN NO	SPEED	FROM	TO	FT./ IN.
GAMMA	2	18'	600'	207'	20'
RESISTIVITY, FL & TEMP	2	18'	604'	265'	20'
CALIPER	1	18'	604'	280'	20'

Comments:




280
300
320
340
360
380
400
420
440
460
CASING
End of Casing
301'
NOTE:
DUE TO GAMMA LOG ON LEFT (COMPACT SCALE) IT IS DIFFICULT TO READ
DOLOMITIC
372
BASAL NODULAR
BASAL NODULAR
Base of Edwards ?
425' 427
427
TOP OF GLEN ROSE


500
520
540
560
580
600

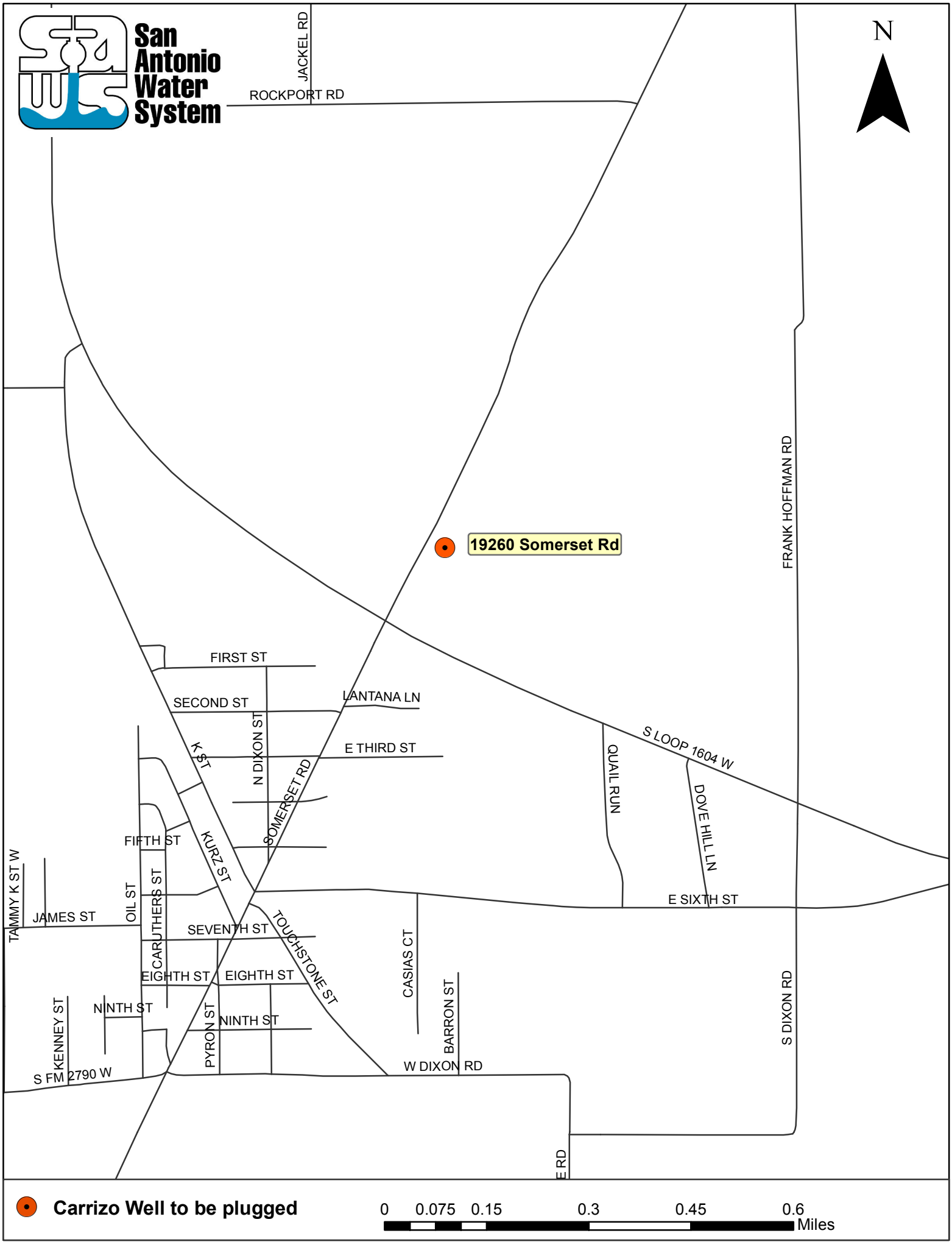

San Antonio Water System
N
ACCESS RD
NORTH OAK
PASEO CANADA
PARK OAK
VISTA ROBLES
ROBLEDO VERDE
ALCALDE MORENO
GRAN
CANADA VERDE
SAGECREST DR
CASA DEL VISTA
S YOSEMITE
CUEVA LN
STERLING BROWNING
CANYON VW
AVENIDA DEL SOL
LARIAT DR
GARRAPATA LN
RUA DE MATTA
MEADOWBROOK
DONELLA DR
EL PORTAL
VOIGT DR
HAVENHURST
SKYFOREST DR
REALTO CIR
HI PATH DR
FLEETWOOD DR
VENTURA DR
Well at 400 Fleetwood
CHARDONNET
SEQUOIA DR
MIREPOIX
PIN OAK FOREST
MECCA DR
HIDDEN VW
HIDDEN PASS
VILLAGE KNOLL
TOWER DR
EL CERRITO CIR
ANTELOPE
SANTA CATHRENA
PVT RD
LOST CABIN
ESTATE LN
VILLAGE CIR
HILL COUNTRY LN
AXIS TRL
CHEROKEE LN
MANY OAKS
WOLF CRK
WALNUT HILL
PVT RD
LIMESTONE CREEK RD
Edwards Well to be plugged
0
0.075
0.15
0.3
0.45
0.6
Miles

Well at 19260 Somerset Rd.

2. Work includes mobilization, setting gravel in well screen interval, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System Plugging Permit prior to plugging well.

Well at 19260 Somerset Rd

Date Drilled – 1972
Total Depth – 400 feet
Well screen interval – from 250 feet to 400 feet below land surface
Casing interval – from surface to 400 feet below land surface
Well screen diameter – 8 inches from 250 feet to 400 feet below land surface (Perforated casing)
Casing Diameter – 8.625 inches from surface to 400 feet below land surface
Water Level – NA
*SAWS will log well prior to plugging (Map Attached)


San Antonio Water System
N
JACKEL RD
ROCKPORT RD
19260 Somerset Rd
FRANK HOFFMAN RD
FIRST ST
SECOND ST
LANTANA LN
E THIRD ST
N DIXON ST
K ST
SOMERSET RD
S LOOP 1604 W
QUAIL RUN
DOVE HILL LN
FIFTH ST
KURZ ST
TAMMY K ST W
JAMES ST
OIL ST
CARUTHERS ST
SEVENTH ST
TOUCHSTONE ST
E SIXTH ST
CASIAS CT
EIGHTH ST
EIGHTH ST
BARRON ST
NINTH ST
NINTH ST
PYRON ST
KENNEY ST
S FM 2790 W
W DIXON RD
S DIXON RD
E RD
Carrizo Well to be plugged
0
0.075
0.15
0.3
0.45
0.6
Miles

Well 078WP2 – 26803Harmony Hills

3. Work includes mobilization, removing and disposing of pump and column pipe, setting gravel in the well scree interval, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Trinity Glen Rose Groundwater Conservation District Plugging Permit prior to plugging well.

Well 078WP2 – 26803 Harmony Hills
Date Drilled – 2007
Total Depth – 700 feet
Column Pipe – 8 inches to 600 feet below land surface with submersible pump(motor unknown size)
Casing screen interval – 380 feet to 700 feet below land surface
Casing – from surface to 380 feet below land surface
Well screen diameter – 12 inches from 380 feet to 700 feet below land surface
Casing Diameter – 16 inches from surface to 400 feet below land surface
Water Level – estimate 360 feet below land surface
*SAWS will log well prior to plugging (Map Attached)

Well 076WP1 – 26802 Harmony Hills

4. Work includes mobilization, setting gravel in the open Trinity formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Trinity Glen Rose Groundwater Conservation District Plugging Permit prior to plugging well.

<u>Well 076WP1 – 26802 Harmony Hills</u>
Date Drilled – 1985
Total Depth – 650 feet
Casing – from surface to 320 feet below land surface
Open Hole – 7 inches from 320 feet to 650 feet below land surface
Casing Diameter – 7 inches from surface to 320 feet below land surface
Water Level – estimate 360 feet below land surface
*SAWS will log well prior to plugging (Map Attached)

Well 077WP1 – 26802 Harmony Hills

5. Work includes mobilization, setting gravel in the open Trinity formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Trinity Glen Rose Groundwater Conservation District Plugging Permit prior to plugging well.

   Well 077WP1 – 26802 Harmony Hills
   Date Drilled – 1983
   Total Depth – 620 feet
   Casing – from surface to 323 feet below land surface
   Open Hole – 7 inches from 323 feet to 620 feet below land surface
   Casing Diameter – 7 inches from surface to 323 feet below land surface
   Water Level – estimate 360 feet below land surface
   (Geophysical log available) Map Attached

Well 075WP1 – 26975 Timberline Dr.

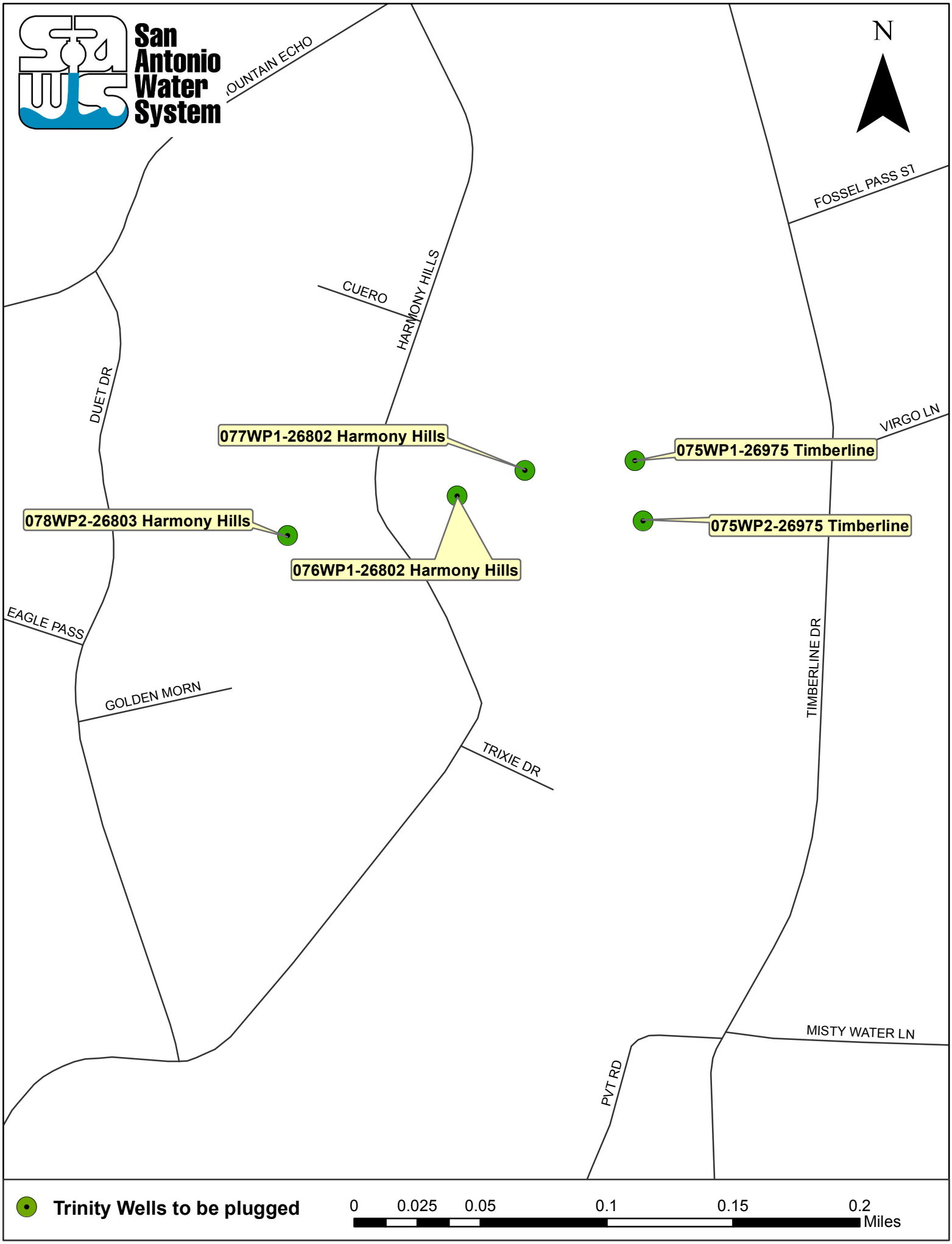
6. Work includes mobilization, setting gravel in the open Trinity formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Trinity Glen Rose Groundwater Conservation District Plugging Permit prior to plugging well.

<u>Well 075WP1 – 26975 Timberline Dr.</u>
Date Drilled – 1977
Total Depth – 634 feet
Casing – from surface to 312 feet below land surface
Open Hole – 7 inches from 312 feet to 634 feet below land surface
Casing Diameter – 7 inches from surface to 312 feet below land surface
Water Level – estimate 360 feet below land surface
(Geophysical log available) Map Attached

Well 075WP2 – 26975 Timberline Dr.

7. Work includes mobilization, setting gravel in the open Trinity formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Trinity Glen Rose Groundwater Conservation District Plugging Permit prior to plugging well.

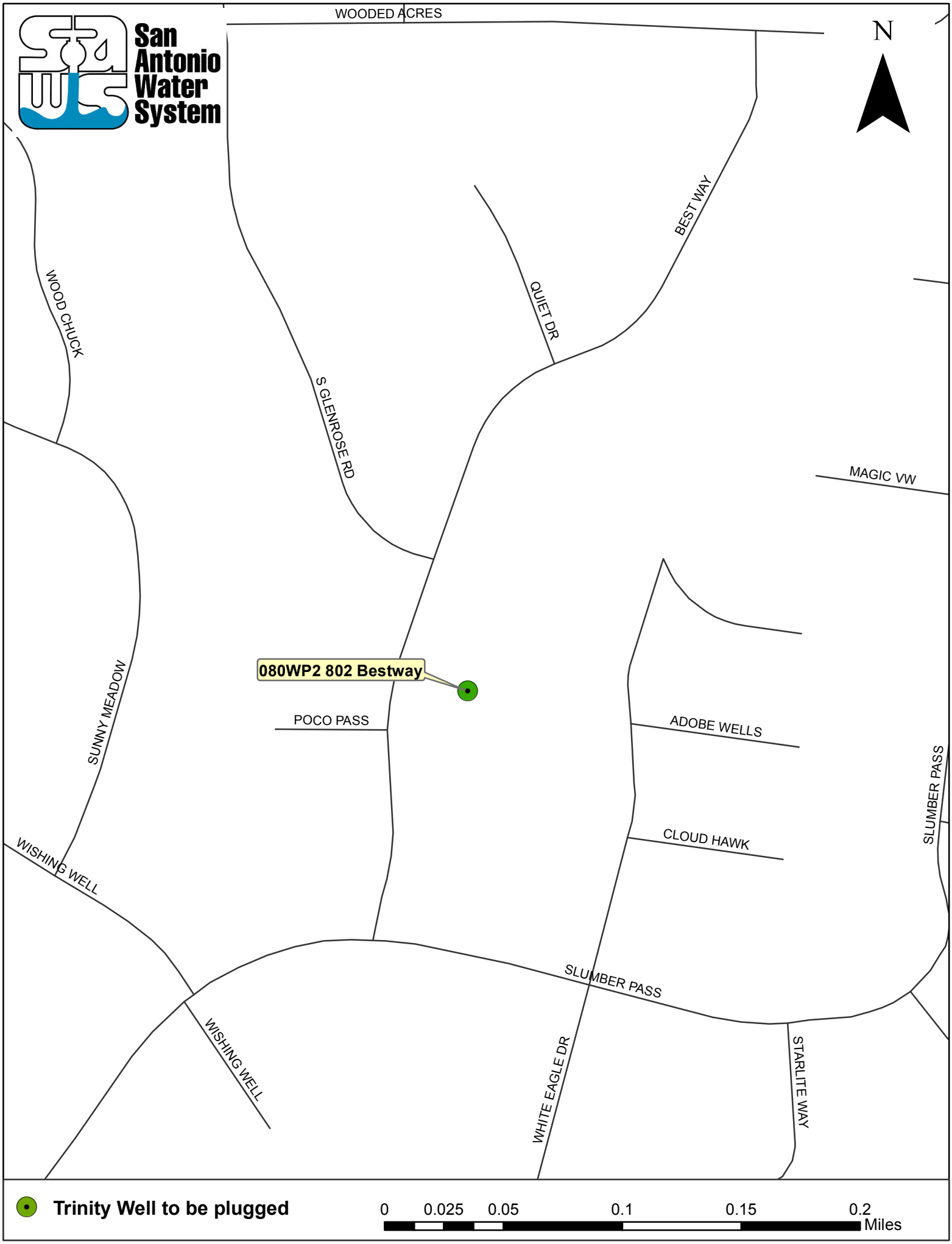
<u>Well 075WP2 – 26975 Timberline Dr.</u>
Date Drilled – 1979
Total Depth – 617 feet
Casing – from surface to 312 feet below land surface
Open Hole – 6.5 inches from 312 feet to 617 feet below land surface
Casing Diameter – 6.5 inches from surface to 312 feet below land surface
Water Level – estimate 360 feet below land surface
(Geophysical log available) Map Attached


San Antonio Water System
N
FOUNTAIN ECHO
FOSSEL PASS ST
CUERO
HARMONY HILLS
DUET DR
VIRGO LN
077WP1-26802 Harmony Hills
075WP1-26975 Timberline
078WP2-26803 Harmony Hills
075WP2-26975 Timberline
076WP1-26802 Harmony Hills
EAGLE PASS
TIMBERLINE DR
GOLDEN MORN
TRIXIE DR
MISTY WATER LN
PVT RD
Trinity Wells to be plugged
0
0.025
0.05
0.1
0.15
0.2
Miles

Well 080WP2 – 802 Bestway

8. Work includes mobilization, removing and disposing of pump and column pipe, disassembling above ground piping, setting gravel in the open hole to 10 feet from the bottom of the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Trinity Glen Rose Groundwater Conservation District Plugging Permit prior to plugging well.

   <u>Well 080WP2 – 802 Bestway</u>
   Date Drilled – 1993
   Total Depth – 700 feet
   Column Pipe – 4 inches to 220 feet below land surface with submersible pump(motor unknown size)
   Casing – from surface to 250 feet below land surface
   Open Hole – 8.74 inches from 250 feet to 700 feet below land surface
   Casing Diameter – 8.625 inches from surface to 250 feet below land surface
   Water Level – estimate 380 feet below land surface
   *SAWS will log well prior to plugging (Map Attached)


San Antonio Water System
N
WOODED ACRES
BEST WAY
QUIET DR
WOOD CHUCK
S GLENROSE RD
MAGIC VW
080WP2 802 Bestway
POCO PASS
ADOBE WELLS
SUNNY MEADOW
SLUMBER PASS
CLOUD HAWK
WISHING WELL
SLUMBER PASS
WISHING WELL
WHITE EAGLE DR
STARLITE WAY
Trinity Well to be plugged
0 0.025 0.05 0.1 0.15 0.2
Miles

Well 048WP4 - 4551 Oak South (Atascosa County)

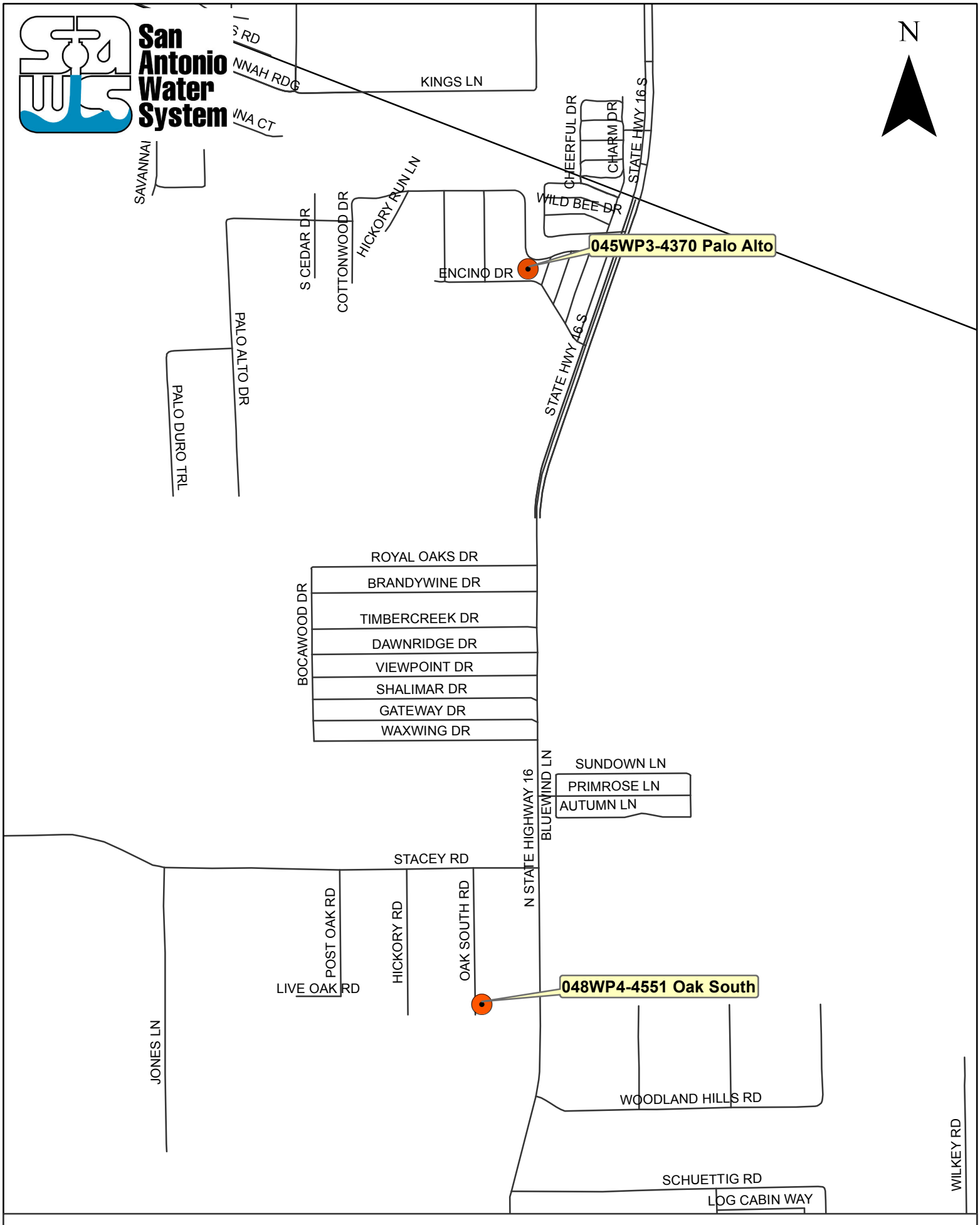
9. Work includes mobilization, setting gravel in well screen interval, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System Plugging Permit prior to plugging well.

<u>Well 048WP4 - 4551 Oak South</u>
Date Drilled – 1996
Total Depth – 710 feet
Well screen interval – from 611 feet to 710 feet below land surface
Casing interval – from surface to 611 feet below land surface
Well screen diameter – 10 inches from 611 feet to 710 feet below land surface
Casing Diameter – 10 inches from surface to 611 feet below land surface
Water Level – 193
(Geophysical log available) Map Attached

Well 045WP3 - 4370 Palo Alto (Atascosa County)

10. Work includes mobilization, setting gravel in well screen interval, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System Plugging Permit prior to plugging well.

<u>Well 045WP3 - 4370 Palo Alto</u>
Date Drilled – 1996
Total Depth – 708 feet
Well screen interval – from 300 feet to 708 feet below land surface
Casing interval – from surface to 300 feet below land surface
Well screen diameter – 10 inches from 300 feet to 708 feet below land surface
Casing Diameter – 10 inches from surface to 300 feet below land surface
Water Level – NA
(Geophysical log available) Map Attached


San Antonio Water System
N
KINGS LN
SAVANNAH RDG
SAVANNAI
CHEERFUL DR
CHARM DR
STATE HWY 16 S
WILD BEE DR
HICKORY RUN LN
S CEDAR DR
COTTONWOOD DR
045WP3-4370 Palo Alto
ENCINO DR
PALO ALTO DR
PALO DURO TRL
STATE HWY 16 S
ROYAL OAKS DR
BRANDYWINE DR
TIMBERCREEK DR
DAWNRIDGE DR
VIEWPOINT DR
SHALIMAR DR
GATEWAY DR
WAXWING DR
BOCAWOOD DR
SUNDOWN LN
PRIMROSE LN
AUTUMN LN
BLUEWIND LN
N STATE HIGHWAY 16
STACEY RD
POST OAK RD
HICKORY RD
OAK SOUTH RD
LIVE OAK RD
048WP4-4551 Oak South
JONES LN
WOODLAND HILLS RD
WILKEY RD
SCHUETTIG RD
LOG CABIN WAY
Carrizo Wells to be plugged
0
0.2
0.4
0.8
1.2
1.6
Miles

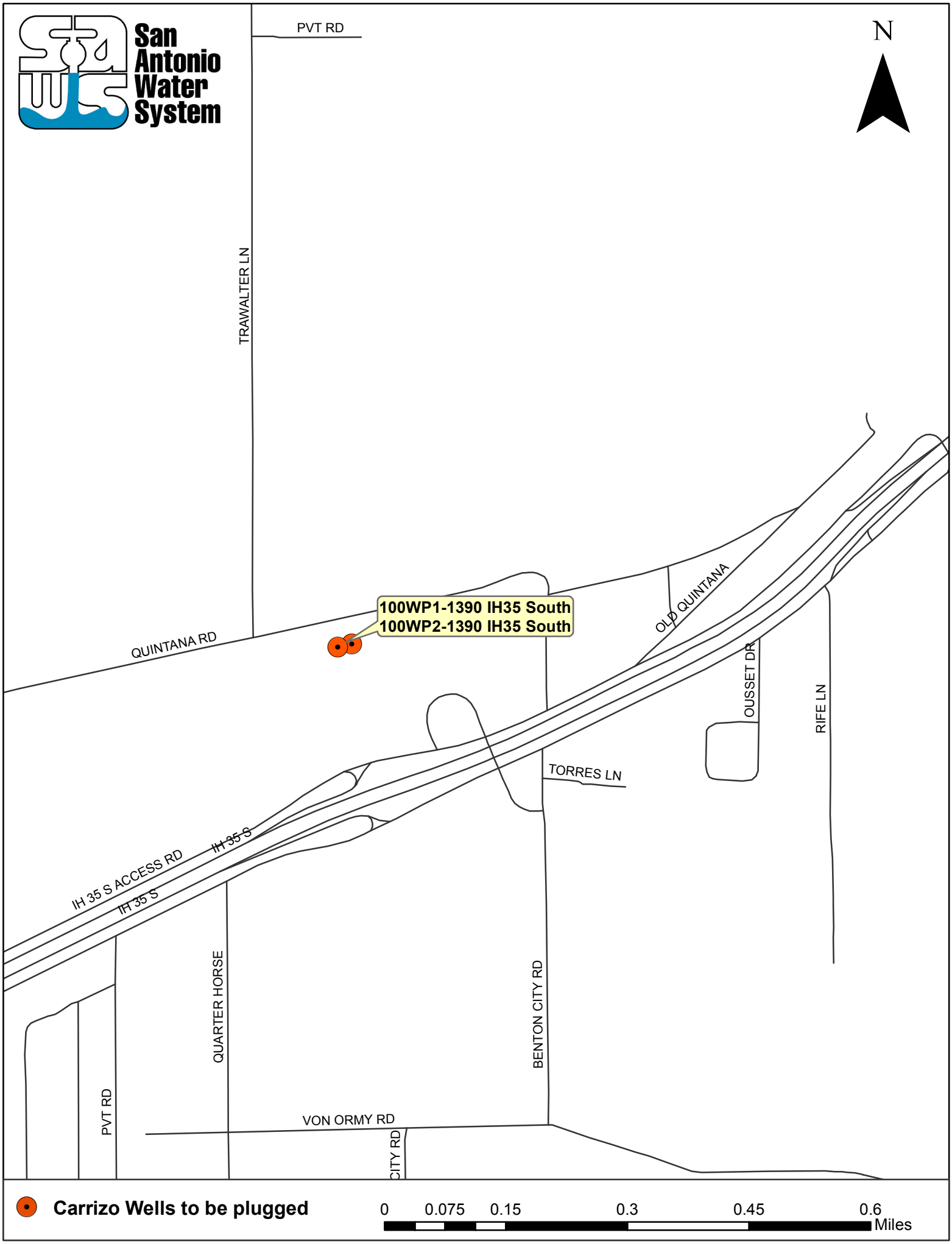
Wells 100WP1 and 100WP2 - 1390 IH 35 South

11. Work includes mobilization, removing and disposing of pump and column pipe, cementing the well casing via pressure cementing from the bottom of the well to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System Plugging Permit prior to plugging well.

100WP1 - 1390 IH 35 South
Date Drilled – 1972
Total Depth – 62 feet
Column Pipe – 2 inch unknown depth
Well screen interval – from 33 feet to 62 feet below land surface (estimated)
Casing interval – from surface to 33 feet below land surface (estimated)
Well screen diameter – 7 inches
Casing Diameter – 7 inches
Water Level – NA

100WP2 - 1390 IH 35 South

Date Drilled – 1972
Total Depth – 65 feet
Column Pipe – 2 inch unknown depth
Well screen interval – from 33 feet to 65 feet below land surface (estimated)
Casing interval – from surface to 33 feet below land surface (estimated)
Well screen diameter – 7 inches
Casing Diameter – 7 inches
Water Level – NA
Map Attached


San Antonio Water System
N
PVT RD
TRAWALTER LN
100WP1-1390 IH35 South
100WP2-1390 IH35 South
QUINTANA RD
OLD QUINTANA
OUSSET DR
RIFE LN
TORRES LN
IH 35 S
IH 35 S ACCESS RD
IH 35 S
QUARTER HORSE
BENTON CITY RD
PVT RD
VON ORMY RD
CITY RD
Carrizo Wells to be plugged
0
0.075
0.15
0.3
0.45
0.6
Miles

Well 049WP3 - 2111 Silver Mountain

12. Work includes mobilization, setting gravel in well screen interval, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System Plugging Permit prior to plugging well.

<u>Well 049WP3 - 2111 Silver Mountain</u>
Date Drilled – 1996
Total Depth – 580 feet
Well screen interval – from 446 feet to 580 feet below land surface
Casing interval – from surface to 446 feet below land surface
Well screen diameter – 10 inches from 446 feet to 580 feet below land surface
Casing Diameter – 10 inches from surface to 446 feet below land surface
Water Level – NA
Geophysical log available () Map Attached

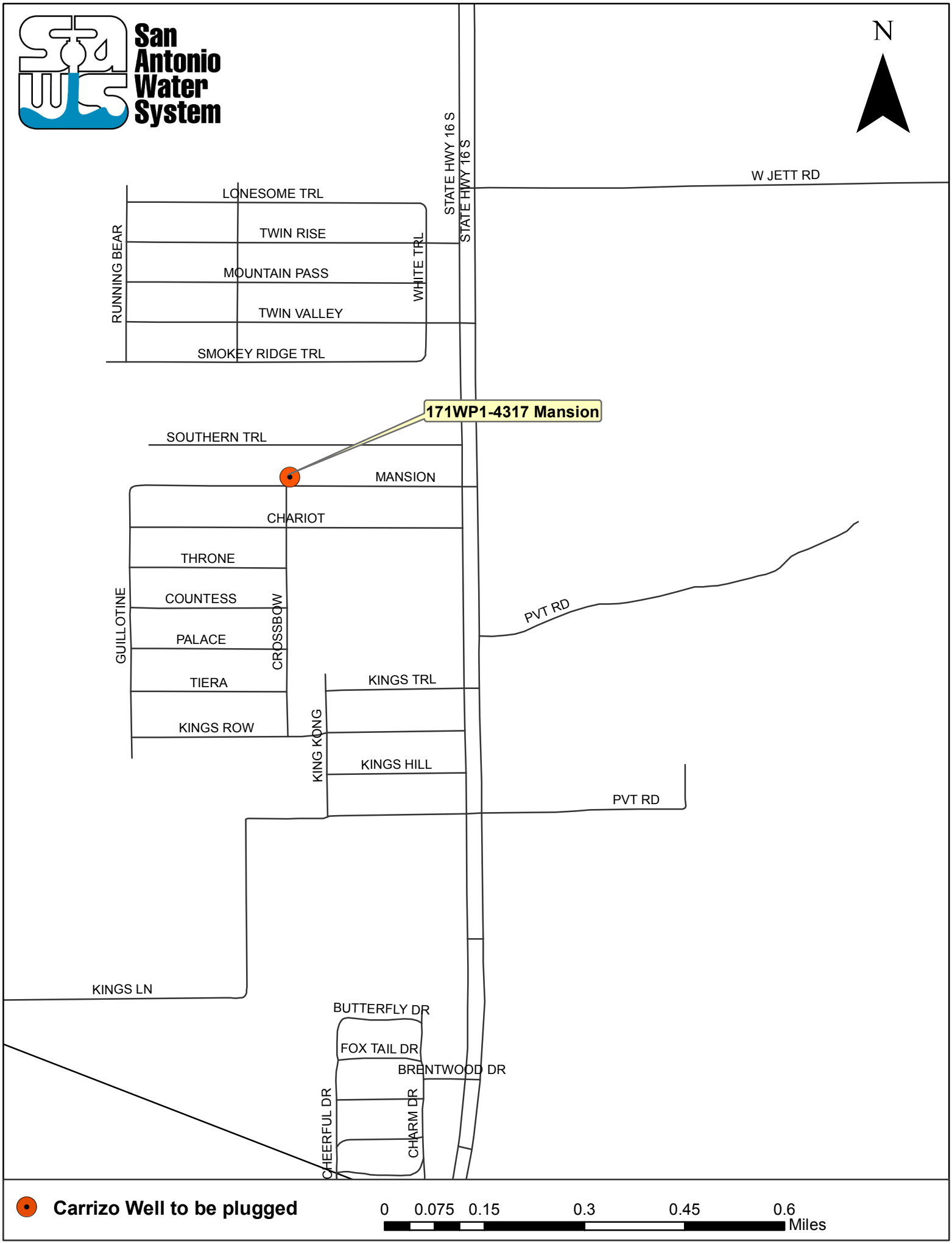

San Antonio Water System
N
049WP3-2111 Silver Mountain
S LOOP 1604 W
APPLEWHITE RD
TRUMBO RD
OAK ISLAND DR
SILVER CIR
SILVER MOUNTAIN DR
SILVER SADDLE DR
ENGLEHART RD
TRUMBO PASS
HALLMARK PATH
TRUMBO TRL
SILVER LEDGE
CONTOUR
SHERRY
PVT RD
Carrizo Well to be plugged
0
0.225
0.45
0.9
1.35
1.8
Miles

Well 171WP1 – 4317 Mansion

13. Work includes mobilization, cementing the well via pressure cementing from the bottom of the well to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System Plugging Permit prior to plugging well.

Well 075WP2 – Timberline

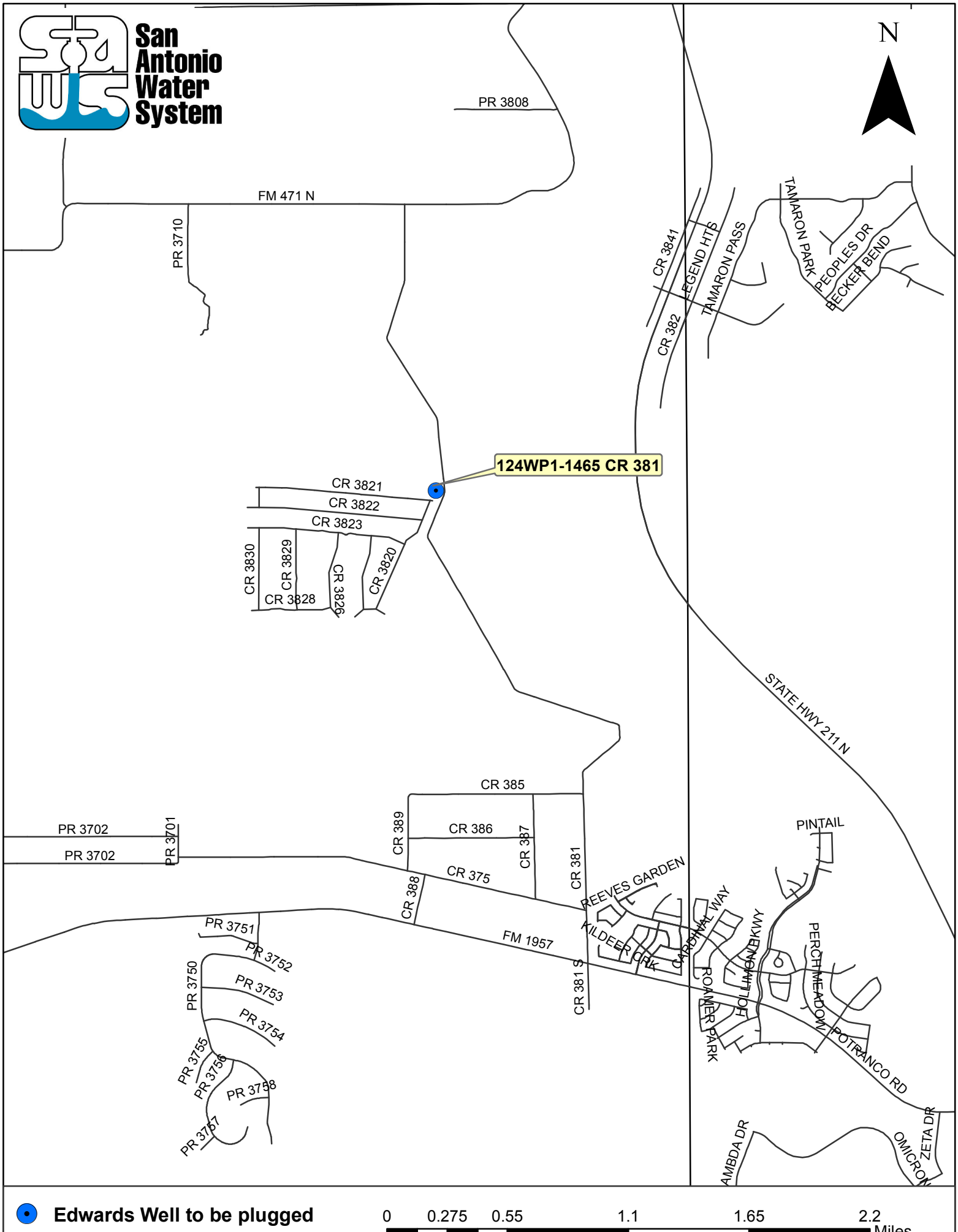
Date Drilled – NA
Total Depth – 60 feet
Casing – from surface to 60 feet below land surface
Water Level – Dry hole
Map Attached


San Antonio Water System
N
STATE HWY 16 S
STATE HWY 16 S
W JETT RD
LONESOME TRL
TWIN RISE
MOUNTAIN PASS
TWIN VALLEY
SMOKEY RIDGE TRL
RUNNING BEAR
WHITE TRL
171WP1-4317 Mansion
SOUTHERN TRL
MANSION
CHARIOT
THRONE
COUNTESS
PALACE
TIERA
KINGS ROW
GUILLOTINE
CROSSBOW
PVT RD
KINGS TRL
KING KONG
KINGS HILL
PVT RD
KINGS LN
BUTTERFLY DR
FOX TAIL DR
BRENTWOOD DR
CHEERFUL DR
CHARM DR
Carrizo Well to be plugged
0 0.075 0.15 0.3 0.45 0.6
Miles

Well 124WP1 – 1465 CR 381 (Medina County)

14. Work includes mobilization, perforating casing every 50 feet or as directed by the Edwards Aquifer Authority, setting gravel in the open Edwards formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad, removing fence and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Edwards Aquifer Authority Plugging Permit prior to plugging well.

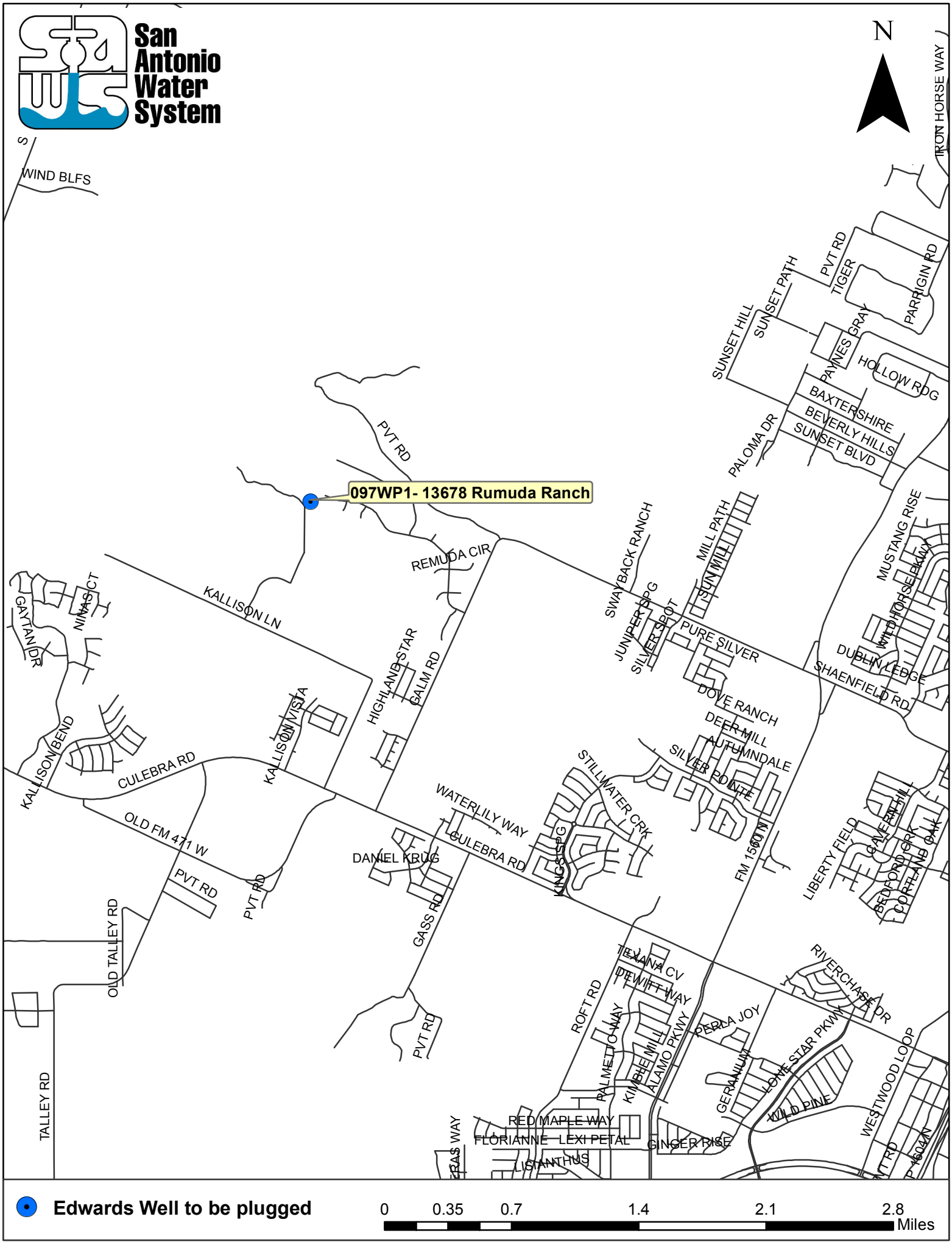
Well 124WP1 – 1465 CR 381 (Medina County)
Date Drilled – NA
Total Depth – 547 feet
Casing – from surface to 482 feet below land surface
Open Hole – 10.25 inches from 482 feet to 547 feet below land surface
Casing Diameter – 10.25 inches from surface to 482 feet below land surface
Water Level – 307 feet below land surface (8/8/13)
(Geophysical log available) Map Attached


San Antonio Water System
N
PR 3808
FM 471 N
PR 3710
CR 3841
LEGEND HTS
TAMARON PASS
CR 382
TAMARON PARK
PEOPLES DR
BECKER BEND
124WP1-1465 CR 381
CR 3821
CR 3822
CR 3823
CR 3830
CR 3829
CR 3828
CR 3826
CR 3820
STATE HWY 211 N
CR 385
CR 389
CR 386
CR 387
CR 381
CR 375
CR 388
PR 3702
PR 3702
PR 3701
REEVES GARDEN
KILDEER CRK
CARDINAL WAY
PINTAIL
HOLLIMON BLVD
ROAMER PARK
PERCH MEADOW
POTRANCO RD
FM 1957
CR 381 S
PR 3751
PR 3752
PR 3753
PR 3754
PR 3750
PR 3755
PR 3756
PR 3758
PR 3757
AMBDA DR
OMICRON
ZETA DR
Edwards Well to be plugged
0
0.275
0.55
1.1
1.65
2.2
Miles

Well 097WP1 – 13678 Remuda Ranch

15. Work includes mobilization, setting gravel in the open Edwards formation to 10 feet below the casing, cementing the well casing via pressure cementing from the top of the gravel to the surface, demolition of headwork's to include removing cement pad and cutting casing off 5 feet below surface grade. Obtain a San Antonio Water System and Edwards Aquifer Authority Plugging Permit prior to plugging well.

<u>Well 097WP1 – 13678 Remuda Ranch</u>
Date Drilled – 1998
Total Depth – 800 feet
Casing – from surface to 469 feet below land surface
Open Hole – 16 inches from 469 feet to 800 feet below land surface
Casing Diameter – 12.5 inches from surface to 469 feet below land surface
Water Level – 285 feet below land surface (10/23/12)
(Geophysical log available) Map Attached


San Antonio Water System
N
097WP1- 13678 Rumuda Ranch
Edwards Well to be plugged
0 0.35 0.7 1.4 2.1 2.8
Miles
WIND BLFS
IRON HORSE WAY
PVT RD
TIGER
PARRIGIN RD
SUNSET PATH
SUNSET HILL
GRAY
PAYNES
HOLLOW RDG
BAXTERSHIRE
BEVERLY HILLS
SUNSET BLVD
PALOMA DR
REMUDA CIR
KALLISON LN
SWAYBACK RANCH
MILL PATH
SUN MILL
MUSTANG RISE
WILD HORSE BAY
JUNIPER SPG
SILVER SPOT
PURE SILVER
DUBLIN LEDGE
SHAENFIELD RD
DOVE RANCH
DEER MILL
AUTUMNDALE
SILVER POINTE
NINA CT
GAYTAN DR
KALLISON BEND
CULEBRA RD
KALLISON VISTA
HIGHLAND STAR
GALM RD
OLD FM 471 W
PVT RD
OLD TALLEY RD
TALLEY RD
WATERLILY WAY
DANIEL KRUG
GASS RD
KINGSTON SPG
STILLWATER CRK
FM 1560 N
LIBERTY FIELD
GAMEFIELD
BEDFORD CRK
CORTLAND OAK
TEXANA CV
DEWITT WAY
ROFT RD
RIVERCHASE DR
RALMET WAY
KIMBLE MILL
ALAMO PKWY
PERLA JOY
LONE STAR PKWY
GERANIUM
WILD PINE
WESTWOOD LOOP
RED MAPLE WAY
FLORIANNE
LEXI PETAL
GINGER RISE
LISIANTHUS
GRASS WAY
PVT RD
1604 N