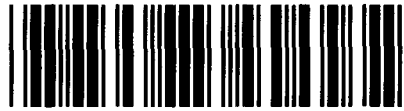




Control Number: 48060



Item Number: 9

Addendum StartPage: 0



**SouthWest
Water Company®**

2018 APR 11 PM 1:28
PUBLIC UTILITIES COMMISSION
FILING CLERK
SWWC Utilities, Inc.
1535 Reed Road
Sugar Land, TX 77478
Phone 281.207.5800
Fax 281.207.5940
www.swwc.com

April 11, 2018

RE: Docket 48060 APPLICATION OF DJL VENTURES, INC. DBA KAP WATER SUPPLY AND SWWC UTILITIES, INC. DBA WATER SERVICES, INC. FOR THE TRANSFER OF SERVICE AREA RIGHTS IN COMAL COUNTY

To the Commission:

In March 2, 2018 the Commission issued Order Number 2 finding that the application in the above referenced docket was incomplete and deficient. The applicants were given until April 12, 2018 to cure the deficiencies noted by the Commission staff. Our responses to the five deficiencies are below.

Deficiency 1: The public water system listed in response to Question 17.A, does not appear to be associated with either of the Applicants.

Response: An incorrect system ID number was put in Question 17.A. The correct public water system ID number for the Windmill Ranch system is TX0460221. Attached is a revised page 16 (Bates page number 00016) from the application.

Deficiency 2: An estimate on the number of future customers in the service area.

Response: The land to be transferred has been platted as 4 lots. So the number of customer connections is estimated to not exceed 4.

Deficiency 3: Proof that either a preliminary engineering report or plans and specifications for the first phase of the system have been submitted to the TCEQ or state if 30 TAC §290.39(j)(1)(D) applies.

Response: 30 TAC §290.39(j)(1)(D) applies in this case. The addition of four (4) new connections will not result in a change to the existing distribution system greater than 10% of the number of connections. Nor will it result in the water system's inability to comply with any of the applicable capacity requirements of 30 TAC §290.

Deficiency 4: Proof that the violations associated with each of the public water systems under CCN No. 11106 have been resolved.

Response: The only public water system under CCN No. 11106 with current, outstanding compliance violations is the Southern Hills system (PWS ID Number 133012). An engineering report detailing the proposed solutions has been submitted to the Texas Commission on

Docket 48060
April 11, 2018
Page 2

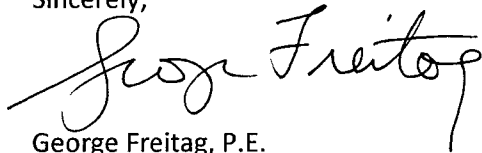
Environmental Quality and is pending approval. The report and related documentation is attached as Response to Deficiency 4.

Deficiency 5: A copy of the executed agreement signed by both parties.

Response: There are no existing facilities to transfer. Attached under Response to Deficiency 5 is a signed copy of the agreement between the parties that was previously supplied in Appendix F (Bates page number 00034).

I hope these responses and additional information will resolve the deficiencies in the application and it will be declared administratively complete so it can be processed in a timely manner. However, please feel free to contact me if there are questions or if additional information is needed.

Sincerely,



George Freitag, P.E.
Texas Regulatory Manager
SouthWest Water Company
SWWC Utilities, Inc. dba Water Services, Inc.
1520 Grand Avenue Parkway, Suite 140
Pflugerville, TX 78660
512/219-2288
gfreitag@swwc.com

Enclosures

DOCKET 48060

RESPONSE TO DEFICIENCY 1

Part F – TCEQ Public Water or Sewer System Information

☞ Please answer questions 17 through 22 on a different sheet for each physically Distinct system being transferred or acquired.

17. A. For Water Systems. TCEQ Public Water System Identification Number:

0	4	6	0	2	2	1
---	---	---	---	---	---	---

Date of last inspection:

11/16/2016

B. For Wastewater Systems:

-TCEQ Discharge Permit Number: W Q

--	--	--	--	--

 -

--	--	--

-Name of Permittee:

n/a

-Date of application to transfer Discharge Permit submitted:

--

-Date of application to transfer Discharge Permit approved by TCEQ:

--

18. A. Are any improvements required to meet TCEQ or PUC standards? Yes No. If yes, please explain:

B. Is there a moratorium on new connections? Yes No. If yes, please explain:

C. Provide details of each required major capital improvement to correct the deficiencies and meet the TCEQ or PUC standards (attach additional sheets if necessary):

Description of the Required Improvement	Schedule to Complete	Estimated Cost

19. Does the system being transferred operate within the city limits of a municipality or within district boundaries? Yes No

If yes, indicate the number of customers within the city limits or district boundaries:
 Water Sewer

☞ Attach copy of franchise agreement or consent letter from the city or district.

DOCKET 48060

RESPONSE TO DEFICIENCY 4

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 27, 2018

CERTIFIED MAIL NO. 91 7199 9991 7036 8838 2667
RETURN RECEIPT REQUESTED

Mr. Tim Williford, Senior Environmental Health and Safety Manager
Southwest Water Company
1620 Grand Avenue Parkway STE 140
Pflugerville, Texas 78660

Re: Notice of Enforcement for Compliance Investigation at:
Southern Hills, 4 MI S of Kerrville off HWY 16, Kerr County, Texas
Regulated Entity No.: RN101224384, TCEQ ID No.: 1330128
Investigation No.: 1467363

Dear Mr. Williford:

On February 15, 2018, Mr. Colby Maron of the Texas Commission on Environmental Quality (TCEQ) San Antonio Region Office conducted an investigation of the above-referenced regulated entity to evaluate compliance with applicable requirements for a public water supply. During this investigation, certain outstanding alleged violations were documented. Enclosed is a summary which lists the investigation findings and recommended corrective actions. Additional recommended corrective actions may be provided by the Enforcement Division.

In the listing of the alleged violations, we have cited applicable requirements, including TCEQ rules. Please note that both the rules themselves and the agency brochure entitled *Obtaining TCEQ Rules* (GI 032) are located on our agency website at <http://www.tceq.state.tx.us> for your reference. If you would like a hard copy of this brochure mailed to you, you may call and request one from either the San Antonio Region Office at 210-490-3096 or the Central Office Publications Ordering Team at 512-239-0028.

Also, please be advised that the Legislature has granted enforcement powers to the TCEQ to carry out its mission to protect human health and the environment. Due to the apparent seriousness of the alleged violations, formal enforcement action has been initiated, and additional violations may be cited upon further review. We encourage you to immediately begin taking actions to address the outstanding alleged violations.

In responding with prompt corrective action, the administrative penalty to be assessed may be limited.

The Commission recognizes that the great majority of the regulated community wants to prevent pollution and to comply with environmental laws. We dedicate considerable resources towards making voluntary compliance achievable. But where compliance has not been met it is

Mr. Tim Williford
March 27, 2018
Page 2

our duty to protect the public and the environment by enforcing the state's environmental laws, regulations, and permits.

Also, if you believe the violations documented in this notice have been cited in error, and you have additional information that we are unaware of, you may request a meeting to discuss this enforcement matter. To request a meeting, send a letter describing the additional information to the address shown below.

Manager, Drinking Water Section
Enforcement Division, MC 219
Re: Enforcement Meeting Request
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

If you or your staff have any questions, please feel free to contact Mr. Maron in the San Antonio Region Office at 210-403-4024.

Sincerely,



Joy Thurston-Cook
Water Section Team Leader
San Antonio Region Office
Texas Commission on Environmental Quality

JTC/CM/eg

Enclosure: Summary of Investigation Findings

Summary of Investigation Findings

SOUTHERN HILLS

Investigation #

1467363
Investigation Date: 02/15/2018

, KERR COUNTY,

Additional ID(s): 1330128

OUTSTANDING ALLEGED VIOLATION(S) ASSOCIATED TO A NOTICE OF ENFORCEMENT

Track No: 606719 Compliance Due Date: To Be Determined

30 TAC Chapter 290.45(b)(1)(D)(iii)

Alleged Violation:

Investigation: 1336511

Comment Date: 06/10/2016

Failure to provide at least 2.0 GPM per service connection of service pump capacity.

At the time of the investigation, the water system relied on 290.45(b)(1)(D)(iii) and the presence of elevated storage to reduce the minimum required service pump capacity to be reduced from 2.0 GPM per connection to 0.6 GPM per connection. The elevated ground storage tank at the Monte Bello plant provide 6,800 gallons of elevated storage after the ground storage requirements for the 6 connections on the upper pressure plane were accounted for. According to 290.45(b)(1)(D)(iii), in order to qualify for reduced service pump capacity, the elevated storage must provide 200 gallons per connection. The elevated capacity of 6,800 was used to account for 34 of the 284 connections on the lower pressure plane. The resulting 250 connections required 2.0 GPM per connection and requiring at least 500 GPM of service pump capacity. After the 34 connections were accounted for in the service pump capacity (20.4 GPM), the water system produced 299.6 GPM and was at a deficit of 200.4 GPM, or 38.5% deficient on the lower pressure plane.

290.45(b)(1)(D)(iii) two or more pumps that have a total capacity of 2.0 gpm per connection or that have a total capacity of at least 1,000 gpm and the ability to meet peak hourly demands with the largest pump out of service, whichever is less, at each pump station or pressure plane. For systems which provide an elevated storage capacity of 200 gallons per connection, two service pumps with a minimum combined capacity of 0.6 gpm per connection are required at each pump station or pressure plane. If only wells and elevated storage are provided, service pumps are not required;

Investigation: 1421630

Comment Date: 08/23/2017

On June 29, 2017 the TCEQ received a request for a 365 day extension. The entity will be granted an additional 90 day extension to document that a compliance plan has been developed and submitted for UTRT approval.

Investigation: 1467363

Comment Date: 02/15/2018

This violation remains outstanding. However, Southwest Water Company is working with TCEQ Plan Review.

Recommended Corrective Action: Provide by the compliance due date, completed work orders, invoices and/or photographs indicating that larger capacity service pumps have been installed, the elevated storage capacity has been increased in size to accommodate the active connections and/or that an Alternative Capacity Requirement has been granted.

The addition of a well or any other significant changes to the water system facilities requires submittal and approval of engineering plans by the TCEQ Utilities Technical Review Team (Phone No. 512-239-4691). All submittals shall be mailed to:

TCEQ
Utilities Technical Review Team, MC 159
PO BOX 13087
Austin, Texas 78711-3087

TCEQ PUBLIC WATER SYSTEM PLAN REVIEW SUBMITTAL FORM
(Complete, Seal and Attach to Submittal Package)

WATER SYSTEM INFORMATION

Date:	March 22, 2018
TCEQ PWS Identification No.: (Facilities will be assigned this PWS No.)	1330128
Water System Name:	The Southern Hills Water Systems

OWNER INFORMATION

Water System Owner:	SWWC Utilities, Inc.		
Address:	1620 Grand Avenue, Suite 140, Pflugerville, TX 78660	(AC) Phone:	(512) 335-7580
Responsible Official:	Joe Torralva	Title:	Manager of Design and Construction
County (System Location):	Kerr	Mechanism & Source of Financing: (i.e. loans, rates, self-financed, etc.)	Self
Subdivision Sec., Phase, Unit, Etc.	Southern Hills		

ENGINEER INFORMATION

Engineer Name:	Steven D. Kallman, P.E.	Registration No.:	40762
Firm Name:	S.D. Kallman, L.P., ~ Engineers and Environmental Consultants	Firm No.:	F-516
(AC) Phone:	(512) 218-4404	(AC) Fax:	(512) 218-1668
Firm Address:	1106 South Mays, Suite 101, Round Rock, Texas 78664		

SUBMITTAL INFORMATION

Is this submittal for a new public water system?	YES: <input type="checkbox"/> NO: <input checked="" type="checkbox"/>
If no, proceed to the <i>Project Information</i> section on Page 2. If no PWS number exists, the owner must submit a core data form and business plan, if required, in accordance with §290.39(f) and (g).	

NEW (PROPOSED) WATER SYSTEMS

(Only complete this section if this submittal is for a NEW water system)

For new (proposed) system submittals, please provide 2 copies of the submittal and attach the following:

<input type="checkbox"/>	A list of all water utilities within ½ mile of the proposed service area boundaries (reference 30 TAC 290.39(c)(1))
<input type="checkbox"/>	Copies of written responses from each of the entities listed above (reference 30 TAC 290.39(c)(1))
<input type="checkbox"/>	Copies of formal applications for service from each of the following (reference 30 TAC 290.39(c)(1)) :
<input type="checkbox"/>	Any municipality if the system is within its ETJ
<input type="checkbox"/>	Any district or other political subdivision whose corporate boundaries are within ½ mile of the proposed service area boundaries
<input type="checkbox"/>	Any other water service provider whose certificated service area boundary is within ½ mile of the proposed service area boundaries
<input type="checkbox"/>	Documentation that all application requirements, including fee payments, are current.
<input type="checkbox"/>	<p>Business plan: Please complete the financial ability form, provide a cost summary for the proposed project, and submit a business plan (reference 30 TAC 290.39 (f)). The business plan must confirm capital available to construct the system according to TCEQ requirements. Acceptable financial information can include some of the following:</p> <p>Financial statements (preferably audited), CPA compilation report, tax returns, statements of net worth, bank statements. If the project is being funded with loan proceeds, provide a loan commitment letter from the lender specific to this project.</p> <p>If the plan submittal is for a community system, also provide a copy of the Certificate of Convenience and Necessity (CCN) application submitted to the Public Utility Commission of Texas (PUC), and complete items referenced in 30 TAC 290.39 (f) (1 - 13).</p>

TCEQ PUBLIC WATER SYSTEM PLAN REVIEW SUBMITTAL FORM

(Complete, Seal and Attach to Submittal Package)

- Justification for constructing a separate system (if one of the entities listed above is willing to provide service)
- TCEQ Core Data Form (No. 10400)
- Emergency Preparedness Plan (No. 20536) if serving water in Harris or Fort Bend Counties and have overnight accommodations

CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN)

Certificates of Convenience and Necessity (CCN) applications are processed by the Public Utility Commission of Texas (PUC) and are required for privately owned systems and water supply corporations. If a CCN is required and a CCN does not exist, the applicant must obtain a CCN number or have the application accepted for filing at the PUC before a PWS project submittal can be technically reviewed. In addition, if a submittal is for a project located outside the CCN area, a CCN amendment application must be submitted before a project may be reviewed for construction approval. Please refer to PUC for additional information at: <http://www.puc.texas.gov/industry/water/guidance/UtilRulesGuidance.aspx>.

Will the proposed PWS be owned by either an investor owned utility (IOU) or water supply corporation (WSC)? If yes, please indicate which type of entity _____ YES: NO:

Has a CCN application been submitted to the PUC? If yes, please provide the date of acceptance _____ YES: NO:

List the name, license number and class of the operator for the proposed system: _____

PROJECT INFORMATION

If a system does NOT have a PWS number, the sections above must be filled out

All engineering documents must be sealed, signed, and dated by a Texas registered professional engineer. An engineering report that includes the number of connections to be served must accompany each project. Please check each box that is applicable.

If this submittal is a revision of previously submitted plans, please provide the assigned TCEQ log number: _____

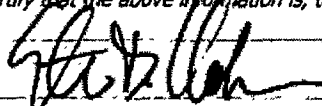
New Projects/Facilities	Modifications to Existing Facilities
<input type="checkbox"/> Water well construction – Proposed	<input type="checkbox"/> Surface water treatment plant modifications
<input type="checkbox"/> Well completion data for approved well	<input type="checkbox"/> Storage capacity modifications
<input type="checkbox"/> Ground water treatment plant – New	<input type="checkbox"/> Distribution system modifications
<input type="checkbox"/> Surface water treatment plant – New	<input checked="" type="checkbox"/> Pressure maintenance facilities modifications
<input type="checkbox"/> Proposed Innovative/Alternative Treatment	<input type="checkbox"/> Disinfection facilities or other modifications
<input type="checkbox"/> Request for rule exception	<input type="checkbox"/>
<input type="checkbox"/> Preliminary engineering report without plans	
<input type="checkbox"/> Texas Water Development Board Project No.:	
<input type="checkbox"/> As-Built Plans & Engineering Report	

Other (please describe): Southern Hills Supplemental Engineering Report

SIGNATURE AND CERTIFICATION

The following certification indicates I have the authority to make submittals on behalf of the PWS referenced on Page 1. I hereby certify that the above information is, to the best of my knowledge, true and correct:

Engineer's Signature: _____



Engineer's Printed Name: Steven D. Kallman, P.E.

Date: March 22, 2018

03-22-18

Signature/P.E. Seal Required below:



Please call (512) 239-4691 if you have questions regarding this form. Your cooperation will help us provide better service. Additional helpful information and rules are available at the Public Water System Plan Review website.

**SOUTHERN HILLS
SUPPLEMENTAL ENGINEERING REPORT**

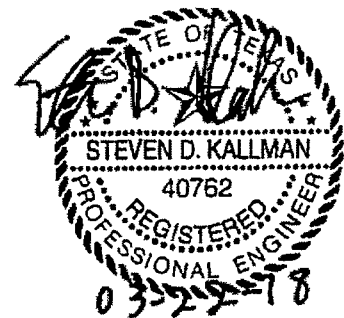
PUBLIC WATER SYSTEM ID NO. 1330128

**RN NO. 101224384
CCN NO. 12052**

Prepared for:
SWWC Utilities, Inc.
c/o Joe Torralva
1620 Grand Avenue Parkway, Suite 140
Pflugerville, Texas 78660
Phone: (512) 335-7580

Prepared by:
S. D. KALLMAN, L.P. --
ENGINEERS AND ENVIRONMENTAL CONSULTANTS
TBPE Firm Registration No. F-516
1106 S. Mays, Suite 101
Round Rock, Texas 78664
Phone: (512) 218-4404
Fax: (512) 218-1668
www.sdkallman.com
E-Mail: steve@sdkallman.com

**November 2017
(Revised March 2018)**



SDK Job No. 707-1697



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ATTACHMENTS

Attachment "A" – TCEQ letter dated August 25, 2017

Attachment "B" – Address list of 285 existing customers served by the Southern Hills Water Systems

Attachment "C" – TCEQ letter dated December 27, 2017

Attachment "D" – Photos and Measurements of Existing Facilities

Attachment "D.1" – Photos of Two – 56,000 Gallon, 40 Feet High, 15 Feet Diameter Water Storage Tanks at the Madrona (Southern Hills) Water Plant

Attachment "D.2" – Photos of One – 2,500 Gallon Hydro Tank No. 1 at the Madrona Water Plant

Attachment "D.3" – Photos of One – 2,500 Gallon Hydro Tank No. 2 at the Madrona Water Plant

Attachment "D.4" – Photos of One – 550 Gallon Hydro Tank No. 1 at the Silver Creek Water Plant

Attachment "D.5" – Photos of One – 550 Gallon Hydro Tank No. 2 at the Silver Creek Water Plant

**Attachment "D.6" – Photos of Service Pump Nos. 1 and 2 at the Madrona Plant
5 Hp / 100 GPM Each**

**Attachment "D.7" – Photos of Service Pump Nos. 1 and 2 at the Silver Creek Plant
5 Hp / 100 GPM Each**

Attachment "E" – Pump Curve and Cost of Estimate for Two New 150 GPM, 7.5 Hp Service Pumps for the Madrona Water Plant.

SECTION I – INTRODUCTION

Southern Hills (“the District”), Public Water System ID No. 1330128, is an existing public water system located in *central Kerr County, Texas*, approximately 1 mile *southwest* of the *City of Kerrville, Texas*, and is bounded on the *south* by Texas State Highway 16, on the *north* by Clear Springs Ranches Estates Subdivision and on the *west* by Kerrville South II Subdivision. The District currently provides potable water service to 285 equivalent single-family connections (“ESFC’s”) under Certificate of Convenience and Necessity No. 12052, and is owned, operated, and maintained by Southwest Water Company, Inc. (“SWWC”), TCEQ Reference Number RN101224384. Figure 4 – Service Areas Pressure Plane and Water Distribution Map for the District is provided at the back of this Report in a “Pocket”.

In response to the TCEQ letter (Attachment “A”) dated August 25, 2017, requesting additional compliance documentation, S.D. Kallman, L.P. prepared a report, dated November, 2017, that represented a comprehensive analysis of the District’s existing water supply, storage, and distribution facilities. The intent of that analysis was to identify any current facility deficiencies from a regulatory and operational perspective. That document was further intended to serve as the TCEQ 85% Capacity Report as specified by 30 TAC §291.93(f)(3).

However, upon TCEQ review of the November, 2017 Engineering Report, TCEQ again compared the system capacities from the investigation conducted by the TCEQ Regional Office in San Antonio on April 25 and 26, 2016 to the capacities stated in S.D. Kallman, L.P.’s November 2017 Engineering Report and formulated a December 27, 2017 letter requesting clarification of Southern Hills water facility capacities and proof thereof to eliminate conflicts of known system capacities.

In an effort to better illustrate the complexity of the five (5) existing pressure planes that serve the Southern Hills water customers, this Supplemental Engineering Report will utilize the “PWS – System Flow Diagram” (Figure 1) and “PWS – System Capacity Calculations” (Table 1) prepared by and graciously provided to us by TCEQ’s Colby Maron. Mr. Maron’s two (2) documents are included herein as Table 1 and Figure 1.

In an attempt to clarify a very complicated situation, this Report will show some minor deviations to Table 1 and Figure 1, based on SWWC, Inc.’s verification of facility capacities and proof to S.D. Kallman, L.P. as to which customers are served by the five (5) existing pressure planes.

SECTION II – EXISTING CONDITIONS

The District’s source of water is groundwater supplied by four (4) existing water wells (1 – 25 GPM at the Madrona Water Plant is on standby) and five (5) pressure planes. The Madrona Water Plant serves the “Madrona Gravity” and “Madrona Hydro Tank” pressure planes. The Silver Creek Water Plant serves the “Silver Creek Hydro Tank” pressure plane. The Monte Bello Water Plant serves the “Monte Bello Gravity” and the “Monte Bello Hydro Tank” pressure plane. Attachment “B” is a list of Southern Hills customers’ addresses within each of the three pressure planes.

Groundwater is pumped from existing wells to the District’s respective Water Treatment Plants: Madrona (Southern Hills) Plant, Silver Creek Plant, and the Monte Bello Plant. At each respective Plant, the raw water is treated, disinfected, stored, and ultimately pumped with booster (service) pumps and hydropneumatic pressure tanks or served by gravity from ground storage tanks to the existing water distribution system for customer consumption. Refer to Figure 2 for a graphic diagram of the five (5) Southern Hills Existing Water System pressure planes and facilities.

FIGURE 1

Name of System: Southern Hills		ID# 1330128
Survey Date: 04/25/2016	Surveyed By: Colby Maron	

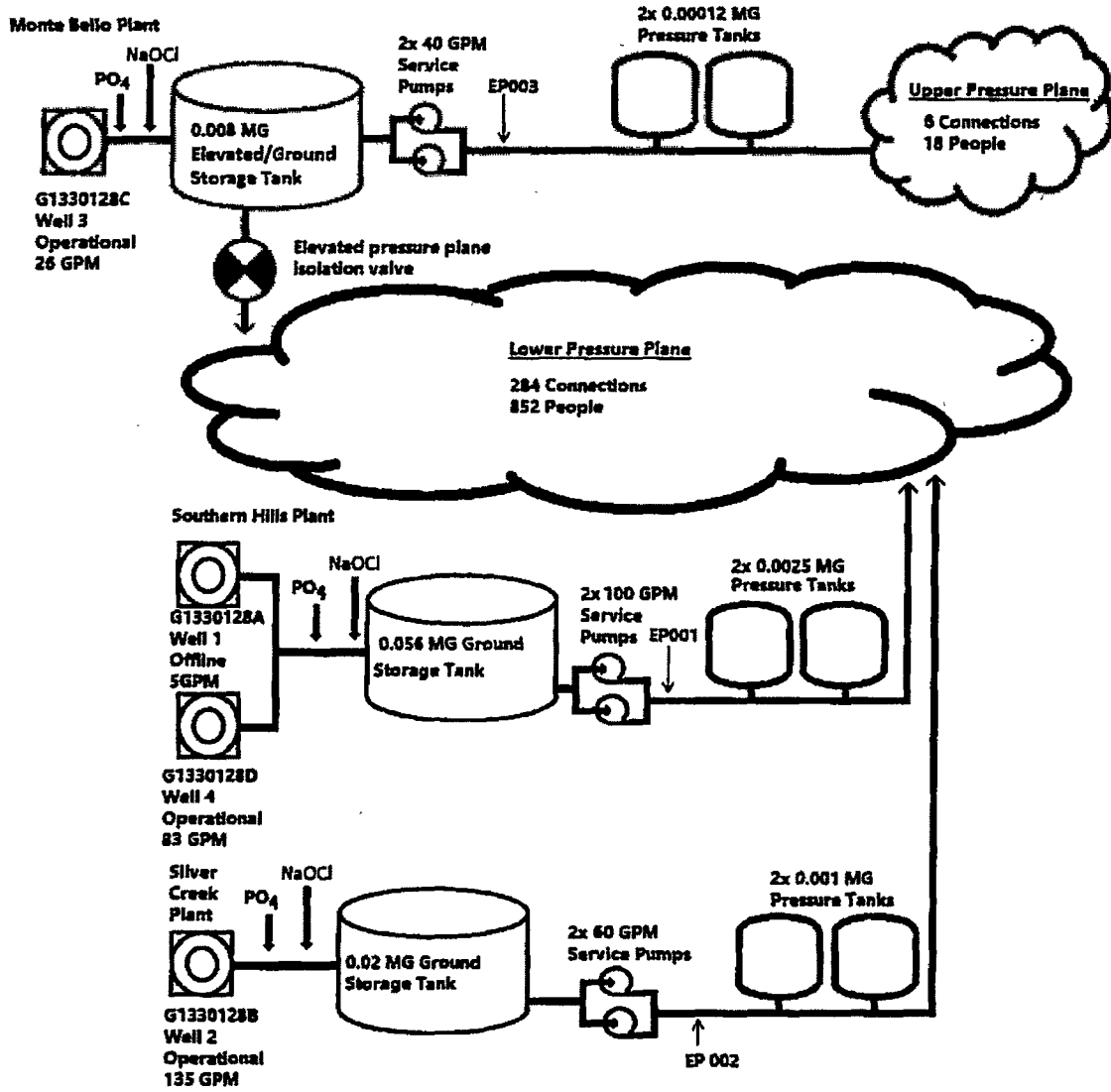
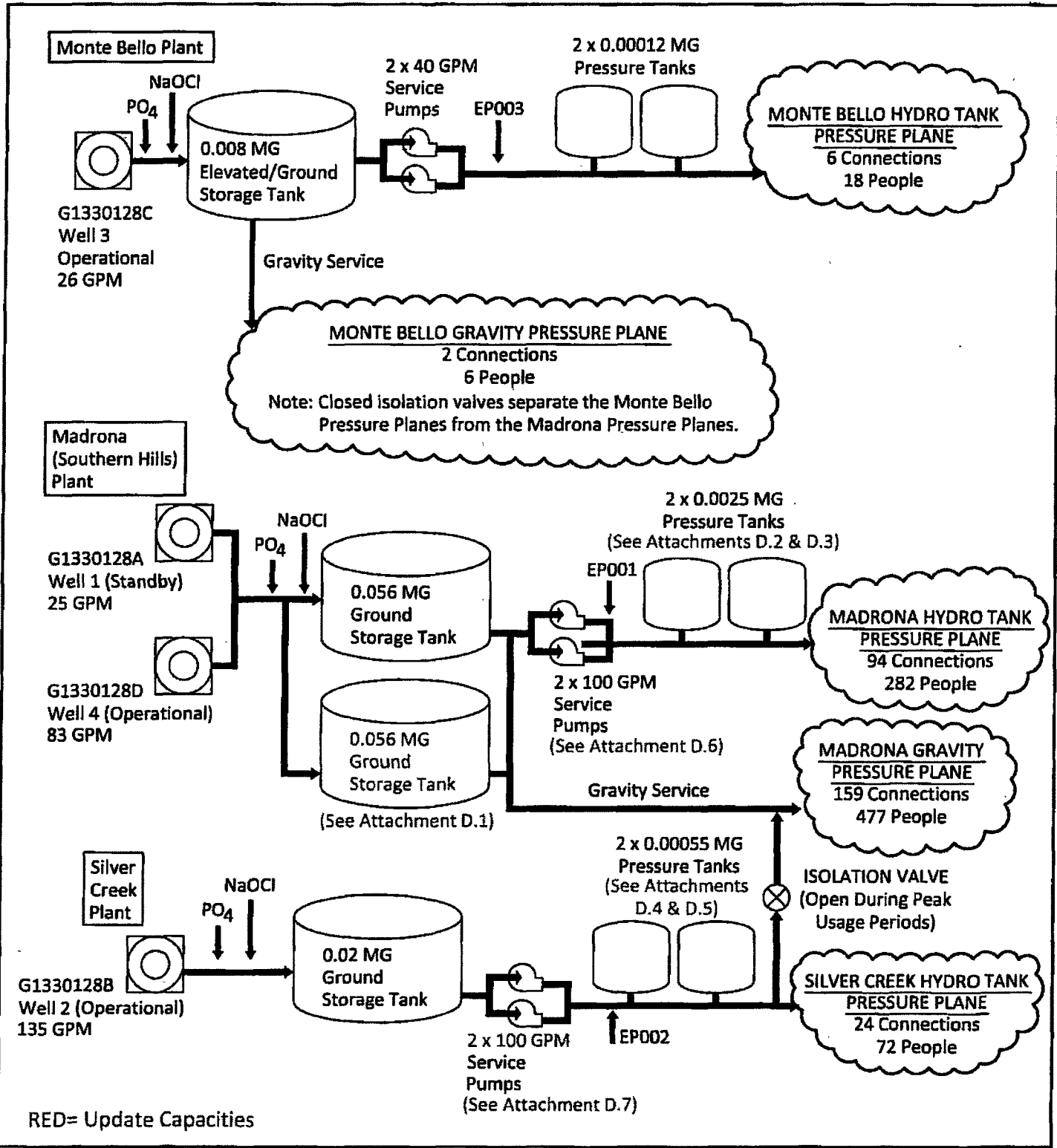


TABLE 1

PWS SYSTEM CAPACITY CALCULATIONS						
Name of System:	Southern Hills			ID#	1330128	
Survey Date:	04/25/2016		Surveyed By: Colby Maron			

Upper Pressure Plane					
Component	Per connection	# of connections	Required	Provided	Carry over
Well	0.6 GPM	290	174 GPM	249 GPM	
Ground Storage	200 gal	6	1200 gal	8000 gal	6800 gal
Service Pump	2.0 GPM	6	12 GPM	80 GPM	None
Pressure Tank	20 gal	6	120 gal	240 gal	None
Lower Pressure Plane					
Component	Per connection	# of connections	Required	Provided	Carry over
Ground Storage	200 gal	284	568,000 gal	828,000 gal	
Elevated Storage	200 gal	34	6800 gal	6800 gal	
Service Pump	0.6 GPM	34	20.4 GPM	320 GPM	299.6 GPM
Pressure Tank	20 gal	250	5000 gal	7000 gal	
Service Pump	2.0 GPM	250	500 GPM	299.6 GPM	-200.4 GPM
					-40.08%



\\M2\sd\workfile-2\7071697\Figure 3.dwg, 3/21/2018 4:24:01 PM

SYSTEM NAME	ID#	FIGURE 2 EXISTING PWS SYSTEM FLOW DIAGRAM	S. D. KALLMAN, L.P. <i>Engineers and Environmental Consultants</i> TBPE Firm Registration No. F-516 1108 South Mays, Suite 101 Round Rock, TX, 78664 Phone: (512) 218-4404 Fax: (512) 218-1668 www.sdkallman.com
SOUTHERN HILLS	1330128		

The District's existing water supply, storage, and distribution system consists of the following components illustrated by Table 2:

TABLE 2
SYSTEM CAPACITY CALCULATION ADJUSTMENTS BASED ON FIELD VERIFICATION

MADRONA PLANT:

<u>Facility Description</u>	<u>Table 1 from TCEQ</u>	<u>SWWC File Info</u>	<u>Capacity Agrees</u>
1. Submersible water well pump	1 – 83 GPM	1 – 83 GPM & 1 – 25 GPM (standby)	No
2. Ground storage tank(s)	1 – 56,000 gallon	2 – 56,000 gallon	No
3. Service pumps	2 – 100 GPM	2 – 100 GPM	Yes
4. Hydropneumatic Pressure Tank(s)	2 – 2,500 gallon	2 – 2,500 gallon	Yes

SILVER CREEK PLANT:

<u>Facility Description</u>	<u>Table 1 from TCEQ</u>	<u>SWWC File Info</u>	<u>Capacity Agrees</u>
1. Submersible water well pump	1 – 135 GPM	1 – 135 GPM	Yes
2. Ground storage tank(s)	1 – 20,000 gallon	2 – 20,000 gallon	Yes
3. Service pumps	2 – 60 GPM	2 – 100 GPM	No
4. Hydropneumatic Pressure Tank(s)	2 – 1,000 gallon	2 – 550 gallon	No

MONTE BELLO PLANT:

<u>Facility Description</u>	<u>Table 1 from TCEQ</u>	<u>SWWC File Info</u>	<u>Capacity Agrees</u>
1. Submersible water well pump	1 – 26 GPM	1 – 26 GPM	Yes
2. Ground storage tank(s)	1 – 8,000 gallon	2 – 8,000 gallon	Yes
3. Service pumps	2 – 40 GPM	2 – 40 GPM	Yes
4. Hydropneumatic Pressure Tank(s)	2 – 120 gallon	2 – 120 gallon	Yes

Since SWWC Utilities, Inc.'s records showed different capacities of certain water systems facilities at Southern Hills three water plants, as shown in Table 2, SWWC Utilities, Inc.'s personnel performed a field reconnaissance of the water plants to measure and photograph the facilities, so that we could prepare this Report with accurate data (refer to Attachment "D" – Photos and Measurements of Existing Facilities, herein). The conflicts in capacities shown in TCEQ's Figure 1, herein and Table 2, herein are itemized below:

MADRONA WATER PLANT

	<u>TCEQ</u>	<u>SWWC</u>
1	1 - 83 GPM water well Total well capacity - 83 GPM	1 - 83 GPM water well and 1 - 25 GPM water well currently on standby Total well capacity - 108 GPM (SWWC records show 1 - 96 GPM well, but will use 1 - 83 GPM herein)
2	1 - 56,000 gallon ground storage tank Total ground storage tank capacity - 56,000 gallons	2 - 56,000 gallon ground storage tanks (see photos of nameplates in Attachment B, herein) Total ground storage tank capacity - 112,000 gallons
3	Service pumps - both agree at 2 - 100 GPM pumps	
4	Hydro tanks - both agree at 2 - 2,500 gallons Total = 5,000 gallons (photos shown in Attachment "D")	

SILVER CREEK PLANT

	<u>TCEQ</u>	<u>SWWC</u>
1	Water well - both agree at 1 - 135 GPM	
2	Ground storage tank - both agree at 1 - 20,000 gallon	
3	2 - 60 GPM service pumps Total service pump capacity = 120 GPM	2 - 100 GPM service pumps SWWC personnel verified 2 - 5 HP pumps at 20 GPM/HP = 2 - 100 GPM Total service pump capacity = 200 GPM
4	2 - 1,000 gallon hydro tanks Total hydro tank capacity = 2,000 gallons	2 - 550 gallon hydro tanks (see photos of hydro tanks in Attachment D) Circumference = 9'-6" length (weld-to-weld) = 9'-10" Volume of one tank = 528 gallons plus ends = 550 gallons Total hydro tank capacity = 1,100 gallons

MONTE BELLO WATER PLANT	
<u>TCEQ</u>	<u>SWWC</u>
1	Water well - both agree at 1 - 26 GPM well
2	Ground storage tank - both agree at 1 - 8,000 gallon ground storage tank
3	Service pumps - both agree at 2 - 40 GPM pumps.
	Total capacity = 80 GPM
4	Hydro tanks - both agree at 2 - 120 gallon hydro tanks.
	Total hydro tank capacity = 240 gallons

SWWC operating personnel has provided the locations of "isolation valves" in the Southern Hills water distribution system to verify the calculation of "number of connections" presently being served in each of the five (5) existing pressure planes. These "isolation valves" are required to be in the "closed" position to prevent unplanned water flow from one higher pressure plane to a lower pressure one. These "isolation valves" are shown in Figures 4, 5 and 6, herein, in expanded graphical views as the "isolation valves" are too small to see in Figure 3 – Southern Hills PWS Service Area, Pressure Planes and Water Distribution System Map. Figure 3 depicts the whole Southern Hills water distribution system with existing connections, street addresses, pressure plane boundary lines, water plant locations and water line sizes.

TCEQ's Table 1 – PWS System Capacity Calculations; herein, was used to develop Table 3. Table 3 – PWS System Capacity Data, Existing Southern Hills water system expands TCEQ's Table 1 into five (5) pressure planes. The Madrona water plant services two (2) pressure planes identified as "Madrona Gravity" and "Madrona Hydro Tank" with overflow elevations (equivalent to hydraulic gradient line created by the top overflow weir of an elevated tank or standpipe) of 1973 feet and 2071 feet, M.S.L., respectively, a difference of 98 feet or 42 PSI. The lower elevation of 1973 feet defines the maximum pressure that the two (2) Madrona tanks can provide to the connections in the "Madrona Gravity" pressure plane. Homes built on lots with ground elevations of 1892 feet (35 PSI) to 1788 feet (80 PSI) could be served by "Madrona Gravity" without pressure reducing valves installed at the water meter box. This pressure plane is depicted on Figure 3.

The higher Madrona Plant elevation of 2071 feet is created with the two booster pumps and two hydropneumatic pressure tanks at the plant site. The booster pumps "on and off" settings of 40 PSI to 60 PSI set the pressure induced on the "Madrona Hydro Tank" pressure plane. The 60 PSI pump "off" pressure establishes a maximum pressure of 2071 feet M.S.L. on the "Madrona Hydro Tank" pressure plane. Lot elevations of 1990 feet (35 PSI) to 1886 feet (80 PSI) could be served.

The Silver Creek Water Plant serves only one (1) pressure plane named "Silver Creek Hydro Tank" with equivalent overflow elevation of 2033 feet M.S.L. with pump on and off settings of 40

PSI to 60 PSI, lot elevations of 1952 feet (35 PSI) to 1848 feet (80 PSI) can be served with this pressure plane.

The Monte Bello Water Plant, which currently has only six (6) water connections, like the Madrona Water Plant, serves two (2) pressure planes called "Monte Bello Gravity" and "Monte Bello Hydro Tank". The "Monte Bello Gravity" pressure plane has a 1926 feet M.S.L. overflow elevation, while the "Monte Bello Hydro Tank" pressure plane has an equivalent 2044 feet M.S.L. overflow elevation. The "Monte Bello Gravity" pressure plane can serve homes from 1845 feet (35 PSI) to 1741 feet (80 PSI) ground elevation. The "Monte Bello Hydro Tank" pressure plane may provide water service from 1963 feet (35 PSI) to 1859 feet (80 PSI) ground elevations. Table "3", below, summarizes the Southern Hills water system pressure plane data, in "highest to lowest overflow elevation" order.

TABLE 3

SOUTHERN HILLS WATER SYSTEM - PRESSURE PLANE SERVICE ZONES			
Pressure Plane ID	Equivalent Overflow Elevation in Feet (M.S.L.)	Highest Ground Elevation Served (Minimum Pressure of 35 PSI)	Lowest Ground Elevation Served (Maximum Pressure of 80 PSI)
Madrona Hydro Tank	2071	1990	1886
Monte Bello Hydro Tank	2044	1963	1859
Silver Creek Hydro Tank	2033	1952	1848
Madrona Gravity	1973	1892	1788
Monte Bello Gravity	1926	1845	1741

During peak water usage periods, one or more of the three (3) manual isolation valves can be cracked open to meet demands in the "Madrona" Gravity pressure plane. This allows the excess capacity of the Silver Creek Water Plant's 135 GPM water well and two – 100 GPM service pumps to be used. The Silver Creek pressure plane serves only 24 connections.

SECTION III – RECOMMENDATIONS AND PROPOSED IMPROVEMENTS

From the TCEQ's August 15, 2017 letter (Attachment "A" herein) requesting additional compliance documentation for the Southern Hills Water System, the Recommended Corrective Action stated:

Provide by the compliance due date, completed work orders, invoices and/or photographs indicating that larger capacity service pumps have been installed, the elevated storage capacity has been increased in size to accommodate the active connections and/or that an Alternative Capacity Requirement has been granted.

This Engineering Report addresses this Corrective Action as follows:

- The two – 100 GPM, 5 Hp service pumps at the Madrona (Southern Hills) Water Plant will be replaced with two – 150 GPM 7.5 Hp service pumps. The pump curve and cost estimate from Kerr Country Pump Company is included herein as Attachment "E". The proposed service pump upgrade includes:
 - Two 7.5 Hp, 3 Phase, Model B1-½T_M, size 1 ½ x 2 x 6 M horizontal centrifugal pumps.
 - Two ESP 200 starters
 - Two 30 amp 3 phase Siemens converters
 - Related plumbing, electrical, and labor

The estimated cost of these improvements is \$9,665.

With the installation of these new pumps the total service pump capacity of the Southern Hills water system will be:

Monte Bello Plant	80 GPM
Madrona Plant	300 GPM
Silver Creek Plant	<u>200 GPM</u>
Total Service Pump Capacity	580 GPM

At 2 GPM/connection for minimum required service pump capacity, 580 GPM will serve 290 connections. Southern Hills total existing water service connections equals 285 connections. Thus, these improvements will comply with TCEQ's Chapter §290 Rules and Regulations for Public Water Systems, as well as the Recommended Corrective Action in TCEQ's August 25, 2017 letter regarding service pump capacity.

The other component in TCEQ's Recommended Corrective Action requirement was to increase elevated storage capacity. The total existing elevated storage capacity of the Southern Hills Water System is:

Monte Bello Plant – The upper ½ of the 8,000 gallon tank = 4,000 gallons.
Madrona Plant – The upper ½ of the two – 56,000 gallon tanks = 56,000 gallons.
Total Southern Hills elevated storage = 60,000 gallons (4,000 + 56,000).

For 285 connections at 100 gallons per connection, 28,500 gallons of elevated storage is required. In order to qualify for reduced service pump capacity, the elevated storage must provide 200 gallons per connection, or 57,000 gallons (285 connections x 200 gallons per connection). With

60,000 gallons of elevated storage, the Southern Hills Water System meets both elevated storage criteria.

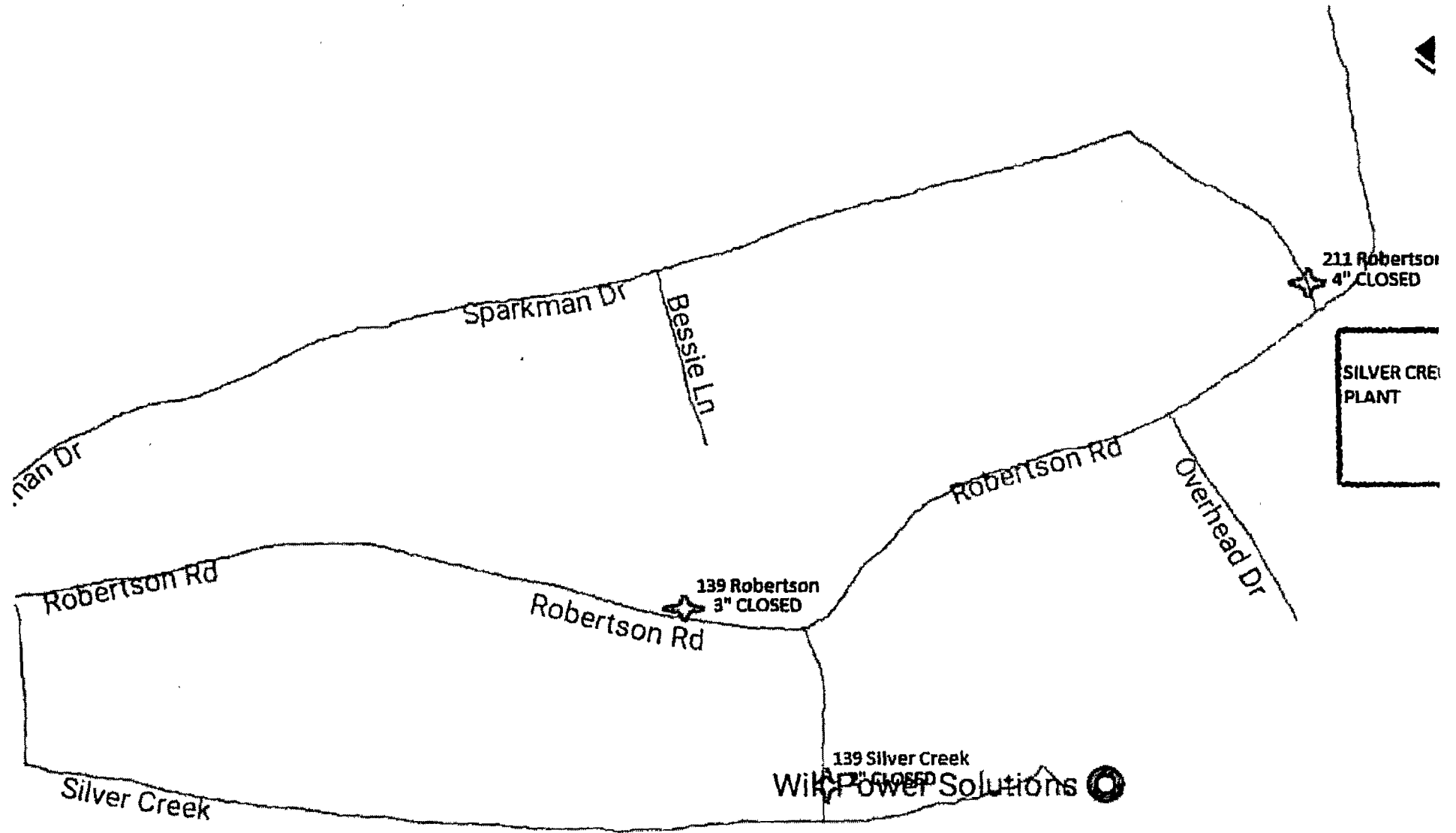
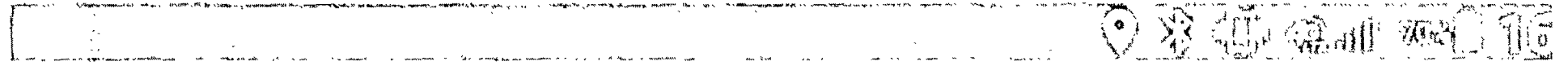
Thus, no additional elevated storage facilities are required at this time to comply with TCEQ's Chapter §290 Rules and Regulations for Public Water Systems.

SECTION IV – CONCLUSION

The Southern Hills water service area has approximately 400 additional lots available for ultimate build-out. As additional ESFC's request service in the future, SWWC Utilities, Inc. will plan for additional water system improvements, as required.

FIGURE 4

**ISOLATION VALVES
SILVER CREEK HYDRO PRESSURE PLANE**



Medina Hwy

4-T Ranch

(16)

WikiPower Solutions

FIGURE 5

**ISOLATION VALVES
MADRONA HYDRO TANK AND
MADRONA GRAVITY PRESSURE PLANES**

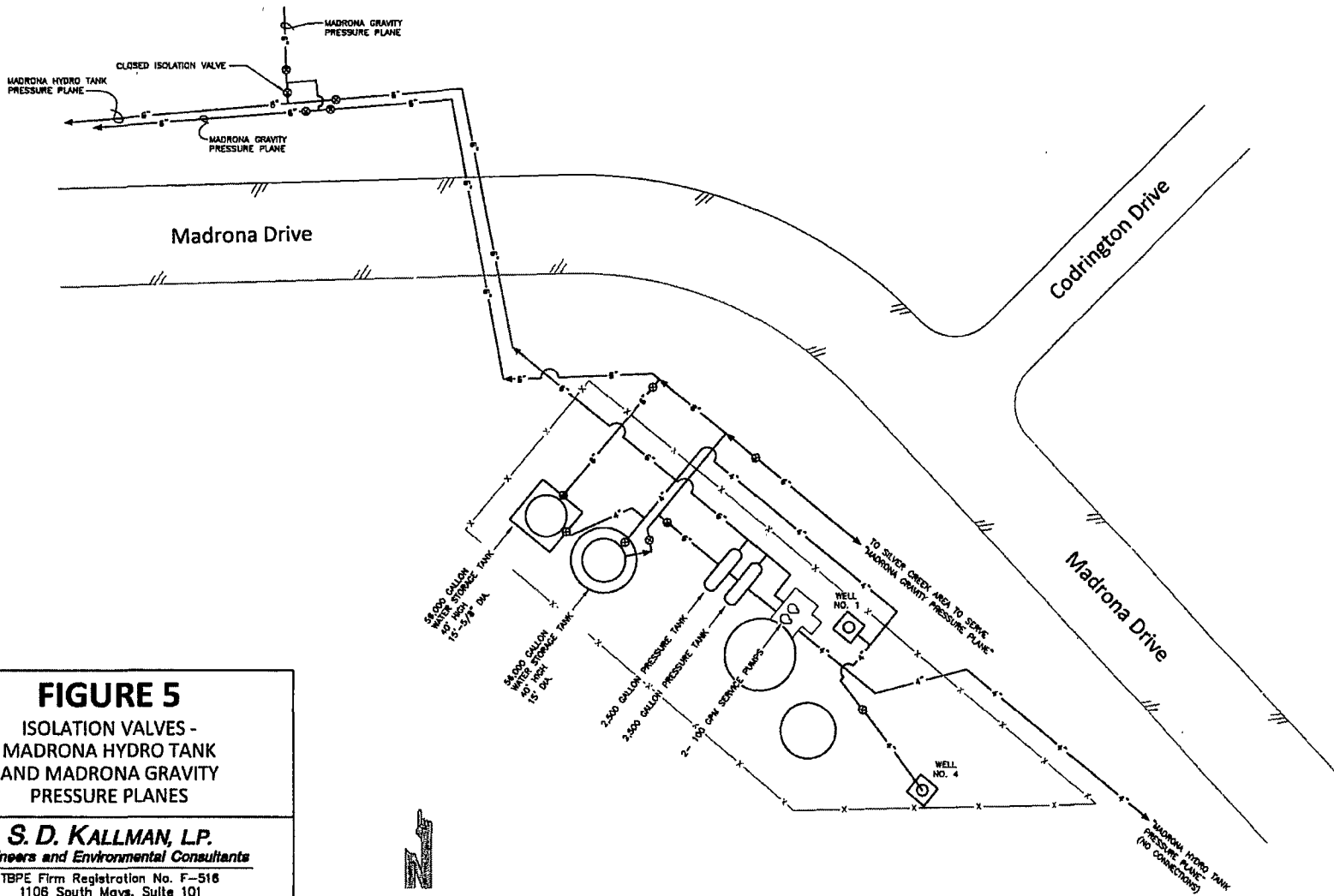


FIGURE 5
ISOLATION VALVES -
MADRONA HYDRO TANK
AND MADRONA GRAVITY
PRESSURE PLANES

S. D. KALLMAN, LP.
Engineers and Environmental Consultants

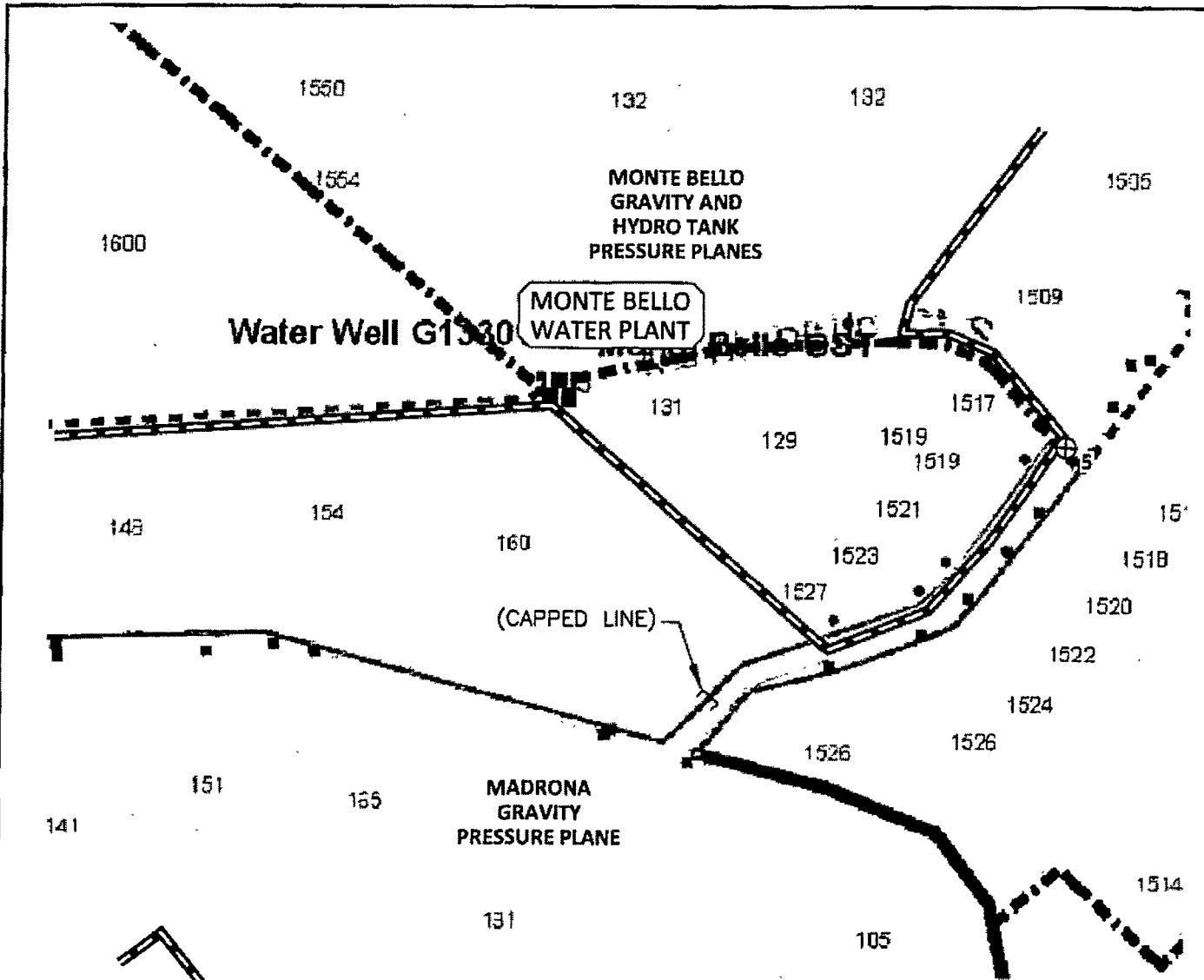
TBPE Firm Registration No. F-518
1106 South Mays, Suite 101
Round Rock, TX. 78664
Phone: (512) 218-4404
Fax: (512) 218-1668
www.sdkallman.com



\\02\ask\1\m\2\7071607\figure 5.dwg, 3/21/2014, 4:25:52 PM

FIGURE 6

**ISOLATION VALVES
MONTE BELLO HYDRO TANK AND
MONTE BELLO GRAVITY
PRESSURE PLANES**



SWWC Utilities, Inc.
Southern Hills PWS
Pressure Plane Address

- Monte Bello Gravity
- Monte Bello Hydro Tank
- Silver Creek Hydro
- Madrona Gravity
- Madrona Hydro Tank

SNHL_WL
Utility Mains

- 2-WATER
- 3-WATER
- 4-WATER
- 6-WATER

— PRESSURE PLANE BOUNDARY LINE

LEGEND:

- ⊙ EXISTING SOLATION VALVE SEPARATING PRESSURE PLANES, NUMBER SHOWN
- ESFC EQUIVALENT SINGLE FAMILY CONNECTIONS

FIGURE 6
ISOLATION VALVES
MONTE BELLO HYDRO TANK AND
MONTE BELLO GRAVITY
PRESSURE PLANES

S. D. KALLMAN, LP.
Engineers and Environmental Consultants

TBPE Firm Registration No. F-516
 1106 South Moys, Suite 101
 Round Rock, TX. 78664
 Phone: (512) 218-4404
 Fax: (512) 218-1668
 www.sdkallman.com

\\w2\snh\work\file_2\7071597\figure_1.dwg, 3/21/2018 4:24:50 PM

ATTACHMENT "A"

**TCEQ LETTER DATED
AUGUST 25, 2017**

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 25, 2017

CERTIFIED MAIL NO.: 91 7199 9991 7036 8835 8332
RETURN RECEIPT REQUESTED

Mr. Tim Williford, Senior Environmental Health and Safety Manager
Southwest Water Company
1620 Grand Avenue Parkway Ste. 140
Pflugerville, Texas 78660

Re: Additional Compliance Documentation Needed for the Comprehensive Compliance Investigation at:
Southern Hills, 4 MI S of Kerrville off HWY 16, Kerr County, Texas
Regulated Entity No.: RN101224384, TCEQ ID No.: 1330128
Investigation No.: 1421630

Dear Mr. Williford:

The Texas Commission on Environmental Quality (TCEQ) San Antonio Region Office has received the compliance deadline extension request that you submitted July 5, 2017 for the alleged violations noted during the investigation of the above-referenced facility conducted on April 25-26, 2016. Please submit compliance documentation for the alleged violations noted during the investigation of the above-referenced facility to us no later than November 23, 2017.

The TCEQ appreciates your assistance in this matter and your compliance efforts to protect the State's environment. We look forward to receiving your response for the remaining alleged violations. Please note that the Legislature has granted TCEQ enforcement powers which we may exercise to ensure compliance with environmental regulatory requirements.

If you or members of your staff have any questions, please feel free to contact Mr. Colby Marun at the San Antonio Region Office at (210)403-4024.

Sincerely,

A handwritten signature in cursive script, appearing to read "Joy Thurston-Cook".

Joy Thurston-Cook
Water Section Team Leader
San Antonio Region Office

JTC/CM/eg

Enclosure: Summary of Investigation Findings

Summary of Investigation Findings

SOUTHERN HILLS

Investigation #

1421630

Investigation Date: 06/16/2017

KERR COUNTY,

Additional ID(s): 1330128

OUTSTANDING ALLEGED VIOLATION(S) ASSOCIATED TO A NOTICE OF VIOLATION

Track No: 606719 Compliance Due Date: 11/23/2017

30 TAC Chapter 290.45(b)(1)(D)(iii)

Alleged Violation:

Investigation: 1336511

Comment Date: 06/10/2016

Failure to provide at least 2.0 GPM per service connection of service pump capacity.

At the time of the investigation, the water system relied on 290.45(b)(1)(D)(iii) and the presence of elevated storage to reduce the minimum required service pump capacity to be reduced from 2.0 GPM per connection to 0.6 GPM per connection. The elevated ground storage tank at the Monte Bello plant provide 6,800 gallons of elevated storage after the ground storage requirements for the 6 connections on the upper pressure plane were accounted for. According to 290.45(b)(1)(D)(iii), in order to qualify for reduced service pump capacity, the elevated storage must provide 200 gallons per connection. The elevated capacity of 6,800 was used to account for 34 of the 284 connections on the lower pressure plane. The resulting 250 connections required 2.0 GPM per connection and requiring at least 500 GPM of service pump capacity. After the 34 connections were accounted for in the service pump capacity (20.4 GPM), the water system produced 299.6 GPM and was at a deficit of 200.4 GPM, or 38.5% deficient on the lower pressure plane.

290.45(b)(1)(D)(iii) two or more pumps that have a total capacity of 2.0 gpm per connection or that have a total capacity of at least 1,000 gpm and the ability to meet peak hourly demands with the largest pump out of service, whichever is less, at each pump station or pressure plane. For systems which provide an elevated storage capacity of 200 gallons per connection, two service pumps with a minimum combined capacity of 0.6 gpm per connection are required at each pump station or pressure plane. If only wells and elevated storage are provided, service pumps are not required;

Investigation: 1421630

Comment Date: 08/23/2017

On June 29, 2017 the TCEQ received a request for a 365 day extension. The entity will be granted an additional 90 day extension to document that a compliance plan has been developed and submitted for UTRT approval.

Recommended Corrective Action: Provide by the compliance due date, completed work orders, invoices and/or photographs indicating that larger capacity service pumps have been installed, the elevated storage capacity has been increased in size to accommodate the active connections and/or that an Alternative Capacity Requirement has been granted.

The addition of a well or any other significant changes to the water system facilities requires submittal and approval of engineering plans by the TCEQ Utilities Technical Review Team (Phone No. 512-239-4691). All submittals shall be mailed to:

TCEQ
Utilities Technical Review Team; MC 159
PO BOX 13087
Austin, Texas 78711-3087

ACR requests must be submitted to the TCEQ Technical Review and Oversight Team (Phone No. 512-239-4691) for review and approval. All requests must be submitted to

SOUTHERN HILLS

Investigation # 1421630

TCEQ

Technical Review and Oversight Team, MC 159

PO BOX 13087

Austin, Texas 78711-3087

ATTACHMENT "B"

**ADDRESS LIST OF 285 EXISTING CUSTOMERS
SERVED BY THE
SOUTHERN HILLS WATER SYSTEMS**

Address_Pressure_plane

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
0	103 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
1	112 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
2	106 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
3	204 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
4	216 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
5	111 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
6	110 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
7	114 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
8	115 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
9	119 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
10	123 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
11	118 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
12	124 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
13	131 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
14	130 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
15	132 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
16	135 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
17	134 Robertson		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	Rd S, Kerrville, TX, 78028, USA					
15	136 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
19	139 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
20	141 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
21	146 Robertson Rd S, Kerrville, TX, 78028, USA		SNHL-G			
22	154 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
23	149 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
24	157 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
25	158 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
26	162 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
27	165 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
28	203 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
29	202 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
30	166 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
31	108 Overhead Dr S, Kerrville, TX, 78028, USA			SRCK-HT		
32	107 Overhead Dr S, Kerrville, TX, 78028, USA			SRCK-HT		
33	110 Overhead Dr S, Kerrville, TX, 78028, USA			SRCK-HT		
34	109 Overhead Dr S, Kerrville, TX, 78028, USA			SRCK-HT		
35	118 Overhead Dr S, Kerrville, TX, 78028, USA			SRCK-HT		

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
36	207 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
37	211 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
38	215 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
39	206 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
40	219 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
41	223 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
42	227 Robertson Rd S, Kerrville, TX, 78028, USA			SRCK-HT		
43	205 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
44	209 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
45	217 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
46	219 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
47	223 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
48	228 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
49	227 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
50	235 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
51	232 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
52	239 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
53	239 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
54	236 Sparkman Dr S, Kerrville,		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	TX, 78028, USA					
55	238 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
56	243 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
57	247 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
58	103 Bessie Ln S, Kerrville, TX, 78028, USA		SNHL-G			
59	244 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
60	107 Bessie Ln S, Kerrville, TX, 78028, USA		SNHL-G			
61	110 Bessie Ln S, Kerrville, TX, 78028, USA		SNHL-G			
62	116 Bessie Ln S, Kerrville, TX, 78028, USA		SNHL-G			
63	303 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
64	307 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
65	311 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
66	310 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
67	314 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
68	138 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
69	329 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
70	323 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
71	318 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
72	322 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
73	327 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
74	337 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
75	340 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
76	330 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
77	326 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
78	103 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
79	102 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
80	107 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
81	111 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
82	106 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
83	110 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
84	114 Troy Dr S, Kerrville, TX, 78028, USA		SNHL-G			
85	107 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
86	111 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
87	119 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
88	123 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
89	131 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
90	135 Silver Creek		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	Run S, Kerrville, TX, 78028, USA					
91	139 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
92	143 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
93	147 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
94	151 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
95	155 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
96	159 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
97	154 Silver Creek Run S, Kerrville, TX, 78028, USA		SNHL-G			
98	102 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
99	110 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
100	116 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
101	126 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
102	150 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
103	160 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
104	201 Whisper Valley Ln S,		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	Kerrville, TX, 78028, USA					
105	185 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
106	175 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
107	171 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
108	165 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
109	145 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
110	107 Upland Run, Kerrville, TX, 78028, USA		SNHL-G			
111	108 Upland Run, Kerrville, TX, 78028, USA		SNHL-G			
112	104 Upland Run, Kerrville, TX, 78028, USA		SNHL-G			
113	161 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
114	123 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
115	115 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
116	104 Liz Run, Kerrville, TX, 78028, USA		SNHL-G			
117	108 Liz Run, Kerrville, TX, 78028, USA		SNHL-G			
118	110 Liz Run, Kerrville, TX, 78028, USA		SNHL-G			
119	127 Madrona Dr S, Kerrville, TX, 78028, USA		SNHL-G			
120	105 Liz Run, Kerrville, TX,		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	78028, USA					
121	107 Whisper Valley Ln S, Kerrville, TX, 78028, USA		SNHL-G			
122	131 Madrona Dr S, Kerrville, TX, 78028, USA		SNHL-G			
123	135 Madrona Dr S, Kerrville, TX, 78028, USA		SNHL-G			
124	143 Madrona Dr S, Kerrville, TX, 78028, USA		SNHL-G			
125	102 Robin Hill Vw S, Kerrville, TX, 78028, USA		SNHL-G			
126	106 Robin Hill Vw S, Kerrville, TX, 78028, USA		SNHL-G			
127	111 Robin Hill Vw S, Kerrville, TX, 78028, USA		SNHL-G			
128	118 Robin Hill Vw S, Kerrville, TX, 78028, USA		SNHL-G			
129	122 Robin Hill Vw S, Kerrville, TX, 78028, USA		SNHL-G			
130	320 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
131	313 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
132	105 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
133	327 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
134	110 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
135	113 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
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137	117 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
138	118 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
139	122 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
140	130 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
141	127 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
142	131 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
143	133 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
144	136 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
145	137 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
146	141 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
147	145 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
148	371 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
149	360 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
150	142 Sun Haven Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
151	351 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
152	347 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
153	109 Sun View Ln S, Kerrville, TX, 78028, USA	SNHL-HT				
154	104 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
155	114 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
156	122 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
157	128 Indian Hills Dr, Kerrville,	SNHL-HT				

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	TX, 78028, USA					
158	134 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
159	140 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
160	148 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
161	156 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
162	155 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
163	161 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
164	165 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
165	171 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
166	164 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
167	177 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
168	185 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
169	180 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
170	184 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
171	190 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
172	191 Indian Hills Dr, Kerrville, TX, 78028, USA	SNHL-HT				
173	339 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
174	370 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
175	375 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
176	133 Moonwilde,	SNHL-HT				

FTD	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
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179	320 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
180	311 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
181	321 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
182	330 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
183	120 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
184	113 Lillian Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
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187	185 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
188	182 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
189	195 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
190	205 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
191	198 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
192	242 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				
193	178 Lillian Dr, Kerrville, TX, 78028, USA	SNHL-HT				

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
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196	110 Marshall Dr, Kerrville, TX, 78028, USA	SNHL-HT				
197	158 Marshall Dr, Kerrville, TX, 78028, USA	SNHL-HT				
198	158 Marshall Dr, Kerrville, TX, 78028, USA	SNHL-HT				
199	155 Marshall Dr, Kerrville, TX, 78028, USA	SNHL-HT				
200	160 Indian Oaks Rd S, Kerrville, TX, 78028, USA	SNHL-HT				
201	265 Marshall Dr, Kerrville, TX, 78028, USA	SNHL-HT				
202	270 Marshall Dr, Kerrville, TX, 78028, USA	SNHL-HT				
203	260 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
204	231 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
205	215 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
206	134 Mott Dr, Kerrville, TX, 78028, USA	SNHL-HT				
207	121 Indian Head Trl S, Kerrville, TX, 78028, USA	SNHL-HT				
208	140 Indian Oaks Rd S, Kerrville, TX, 78028, USA	SNHL-HT				
209	161 Indian Oaks Rd S, Kerrville, TX, 78028, USA	SNHL-HT				
210	110 Ute Trl, Kerrville, TX, 78028, USA	SNHL-HT				
211	164 Kerrville South Dr,	SNHL-HT				

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	Kerrville, TX, 78028, USA					
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214	115 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
215	130 Codrington Dr S, Kerrville, TX, 78028, USA		SNHL-G			
216	148 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
217	141 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
218	141 Codrington Dr S, Kerrville, TX, 78028, USA		SNHL-G			
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220	154 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
221	160 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
222	181 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
223	170 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
224	Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
225	105 Twin Springs Dr, Kerrville, TX, 78028, USA		SNHL-G			
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228	130 Twin Springs Dr, Kerrville, TX,		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
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231	210 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
232	231 Codrington Dr S, Kerrville, TX, 78028, USA		SNHL-G			
233	232 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
234	307 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
235	245 Codrington Dr, Kerrville, TX, 78028, USA		SNHL-G			
236	1527 Nixon Ln, Kerrville, TX, 78028, USA				MEBO-HT	
237	1523 Nixon Ln, Kerrville, TX, 78028, USA				MEBO-HT	
238	1526 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
239	1524 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
240	1522 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
241	1520 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
242	1521 Nixon Ln, Kerrville, TX, 78028, USA				MEBO-HT	
243	1519 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
244	1517 Nixon Ln, Kerrville, TX, 78028, USA				MEBO-HT	
245	132 Montebello Ct S, Kerrville, TX, 78028, USA				MEBO-HT	
246	1600 Calcote Rd, Kerrville,					MEBO-G

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	TX, 78028, USA					
247	1509 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
248	1514 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
249	1512 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
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252	1508 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
253	1506 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
254	1500 Nixon Ln, Kerrville, TX, 78028, USA		SNHL-G			
255	1500 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
256	1502 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
257	1504 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
258	1508 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
259	1510 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
260	1527 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
261	1514 Katy Ln, Kerrville, TX, 78028, USA		SNHL-G			
262	1527 Hidden Acres Rd S, Kerrville, TX, 78028, USA		SNHL-G			
263	1535 Hidden Acres Rd S, Kerrville, TX, 78028, USA		SNHL-G			
264	1545 Hidden Acres Rd S,		SNHL-G			

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	Kerrville, TX, 78028, USA					
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266	1560 Hidden Acres Rd S, Kerrville, TX, 78028, USA		SNHL-G			
267	1560 Hidden Acres Rd S, Kerrville, TX, 78028, USA		SNHL-G			
268	1560 Calcote Rd, Kerrville, TX, 78028, USA				MEBO-HT	
269	Calcote Rd, Kerrville, TX, 78028, USA					MEBO-G
270	115 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
271	135 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
272	455 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
273	156 Kerrville South Dr, Kerrville, TX, 78028, USA	SNHL-HT				
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276	401 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
277	400 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
278	388 Madrona Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
279	313 Sparkman Dr S, Kerrville, TX, 78028, USA		SNHL-G			
280	279 Robertson Rd, Kerrville, TX, 78028, USA			SRCK-HT		
281	Whisper Vly,			SRCK-HT		

FID	LongLabel	Mad_HT	Mad_G	SRCK_HT	MEBO_HT	MEBO_G
	Kerrville, TX, 78028, USA					
282	231 Sparkman Dr S, Kerrville, TX, 78028, USA	SNHL-HT				
283	1504 Nixon Ln, Kerrville, TX, 78028, USA	SNHL-HT				
284	118 Overhead Dr S, Kerrville, TX, 78028, USA			SRCK-HT		
285	0285, ZAF	94	159	24	6	2

ATTACHMENT "C"

**TCEQ LETTER DATED
DECEMBER 27, 2017**

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niemann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*

PWS_1330128_CO_20171227_Plan Ltr

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 27, 2017

Mr. Steven D. Kallman, P.E.
S.D. Kallman, L.P.
1106 South Mays Street, Suite 101
Round Rock, Texas 78664

Re: Southern Hills - Public Water System ID No. 1330128
Engineering Report - Capacity Assessment and 85% Planning
Engineer Contact Telephone: (512) 218-4404
Plan Review Log No. P-11272017-152
Kerr County, Texas

CN600650725; RN101224384

Dear Mr. Kallman:

On November 27, 2017, the Texas Commission on Environmental Quality (TCEQ) received your submittal of engineering report dated November 21, 2017 for the above referenced public water system. Additional information is needed to complete our review of this engineering report. Please provide the following additional information.

1. As stated in the engineering report, this report is submitted in response to the investigation conducted by the TCEQ Regional Office in San Antonio of this public water system. However, some of the capacities mentioned in your reports are not consistent with TCEQ records. The TCEQ investigation report, as per the investigation performed by the TCEQ regional office on April 25 and 26, 2016, shows this water system has total four wells (one off line) with 249 gallons per minute (gpm) total capacity and your report shows three wells with total 220 gpm. Similarly, TCEQ investigation report shows two ground storage tanks and one elevated storage tank with total capacity of 84,000 gallons and your report shows four tanks with 140,000 gallons total storage capacity. Also, the investigation report shows six pressure tanks with total capacity of 6,120 gallons and your report shows six pressure tanks with 6,540 gallons total capacity. The investigation report shows six service pumps with total capacity of 400 gpm and your report shows six service pumps with 480 gpm total capacity. Based on our records, this water system has not submitted any projects for TCEQ review and approval to upgrade its system capacity after the investigation in 2016. Therefore, we could not verify the actual system capacities of this water system. Please clarify the discrepancies of these capacities with supporting documents in your next submittal.
2. TCEQ investigation report indicates that only 6,800 gallons out of total 8,000 gallon of ground storage tank at Monte Bello plant is credited as elevated storage capacity for 34 connections out of 290 total connections (at the time of investigation) served by this water system. The investigation report does not credit any other ground storage tanks for elevated storage capacity to any other connections in the system. However, your report accounts for 161 connections (2 connections at upper pressure plane and 159

Mr. Steven D. Kallman, P.E.

Page 2

December 27 2017

connections at lower pressure plane) out of 285 total connections, being served by elevated storage capacity from these ground storage tanks on these pressure planes. Please provide written explanation describing your basis that these ground storage tanks serve as elevated storage for these 161 connections and also including the topographic map showing the elevations of these tanks and these connections. Please also include the distribution maps to show how these two pressure planes are served from these plants with size of the pipes and location of the valves shown on them.

3. The engineering report says "this document is further intended to serve as the TCEQ 85% Capacity Report as specified by 30 TAC Section 291.93(3)". However, the capacity tables included in the report does not show any of the system capacities at 85% capacity. Please clarify and be specific on the capacity requirements, such as production, storage, pressure, pumping capacity, for which this 85% capacity report is being submitted.
4. If the water system has replaced water system components such as pumps and tanks to upgrade its capacity since last investigation, please provide as-built engineering plans and specification of those items with revised engineering report identifying all upgraded items.

The submittal consisted of an engineering report.

The Southern Hills public water supply system provides water treatment.

Please refer to the Plan Review Team's Log No. P-11272017-152 in all correspondence for this project.

Please note for future submittal: In order to determine if a new source of water or a new treatment process results in corrosive or aggressive finished water that may endanger human health, we are requesting additional sampling and analysis of lead, alkalinity (as calcium carbonate), calcium (as calcium carbonate) and sodium in addition to the required chemical test results for public water system new sources. We are requiring these additional sampling results as listed in our currently revised checklists (Public Well Completion Data Checklist for Interim Use - Step 2 and Membrane Use Checklist - Step 2) which can be found on TCEQ's website at the following address:

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

Please include these additional sampling results in well completion submittals, membrane use submittals, and other treatment process submittals.

New surface water sources will need to also include lead, total dissolved solids, pH, alkalinity (as calcium carbonate), chloride, sulfate, calcium (as calcium carbonate) and sodium with the analysis required in 30 TAC Section 290.41(e)(1)(F).

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittals to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on TCEQ's website at the address shown below. You can also download the most current plan submittal checklists and forms from the same address.

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

Mr. Steven D. Kallman, P.E.
Page 3
December 27 2017

For future reference, you can review part of the Plan Review Team's database to see if we have received your project. This is available on TCEQ's website at the following address:

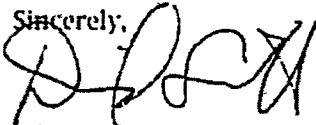
<https://www.tceq.texas.gov/drinkingwater/planrev.html/#status>

You can download the latest revision of 30 TAC Chapter 290 - Rules and Regulations for Public Water Systems from this site.

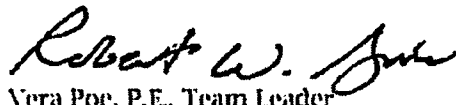
If you have any questions concerning this letter or need further assistance, please contact Kamal Adhikari at (512)239-0680 or by email at kamal.adhikari@tceq.texas.gov or by correspondence at the following address:

Plan Review Team, MC-159
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Sincerely,



for John Lock, P.E.
Plan Review Team
Plan and Technical Review Section
Water Supply Division
Texas Commission on Environmental Quality



for Vera Poe, P.E., Team Leader
Plan Review Team
Plan and Technical Review Section
Water Supply Division
Texas Commission on Environmental Quality

VP/JL/KA/kp

cc: Water Utilities Official, Southern Hills, 1620 Grand Avenue Parkway, Suite 140,
Pflugerville, Texas 78660

ATTACHMENT "D"

**PHOTOS AND MEASUREMENTS
OF EXISTING FACILITIES**

ATTACHMENT "D.1"

PHOTOS

**TWO – 56,000 GALLON,
40 FEET HIGH, 15 FEET DIAMETER
WATER STORAGE TANKS AT THE
MADRONA (SOUTHERN HILLS) WATER PLANT**

COLUMBIAN STEEL TANK COMPANY
KANSAS CITY, KANSAS

SIZE _____ DIA. x _____ HIGH

NOMINAL CAPACITY _____

MFG. NO. 270180 DATE 10/18/59

DWG. NO. 9756W046C1A

PRODUCT WT. WATER _____

CUSTOMER WIJEN FEED WATER WORKS

LIQUID TANK DATA

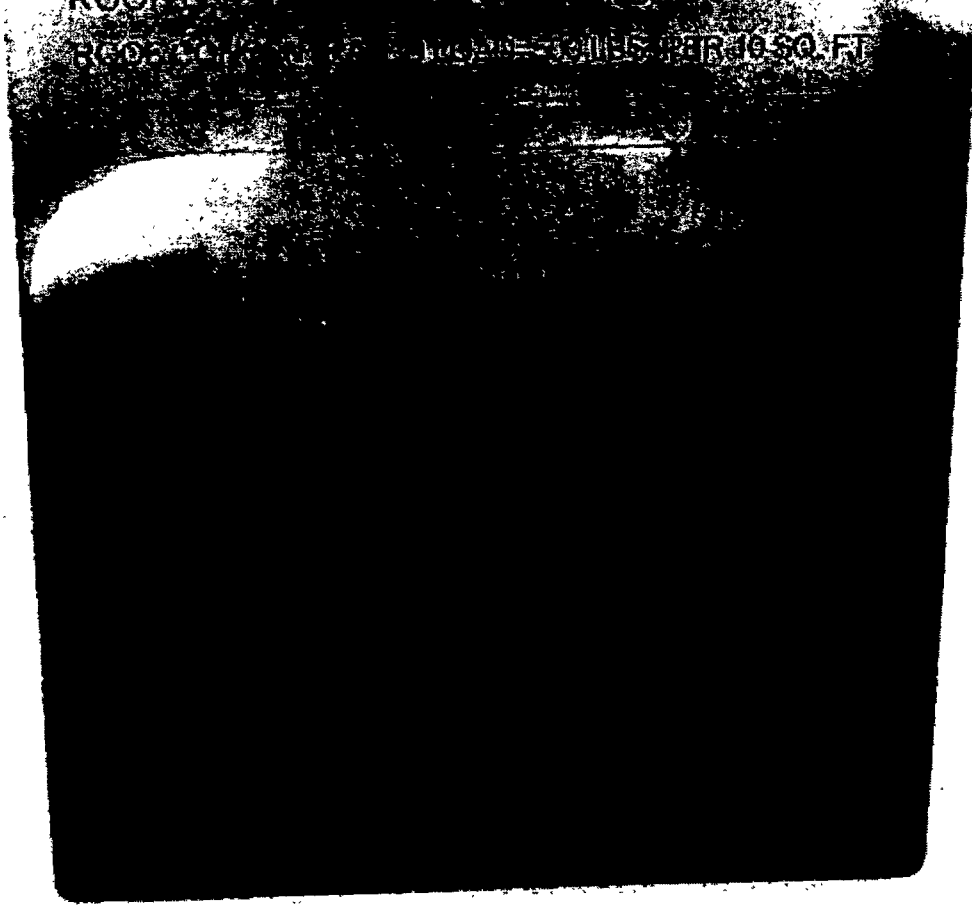
DATE S.O.
DIA HT.
NOM CAPACITY

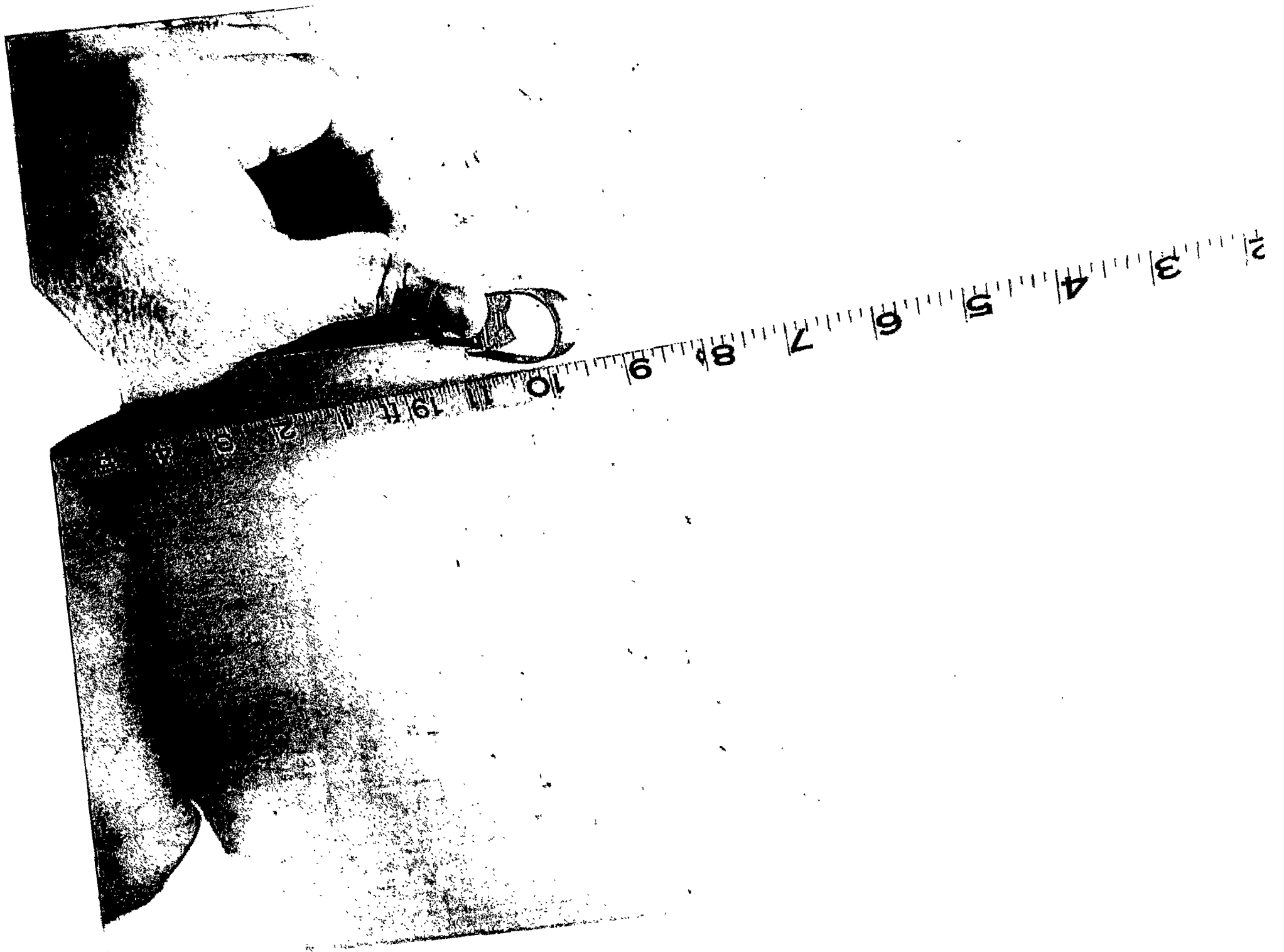
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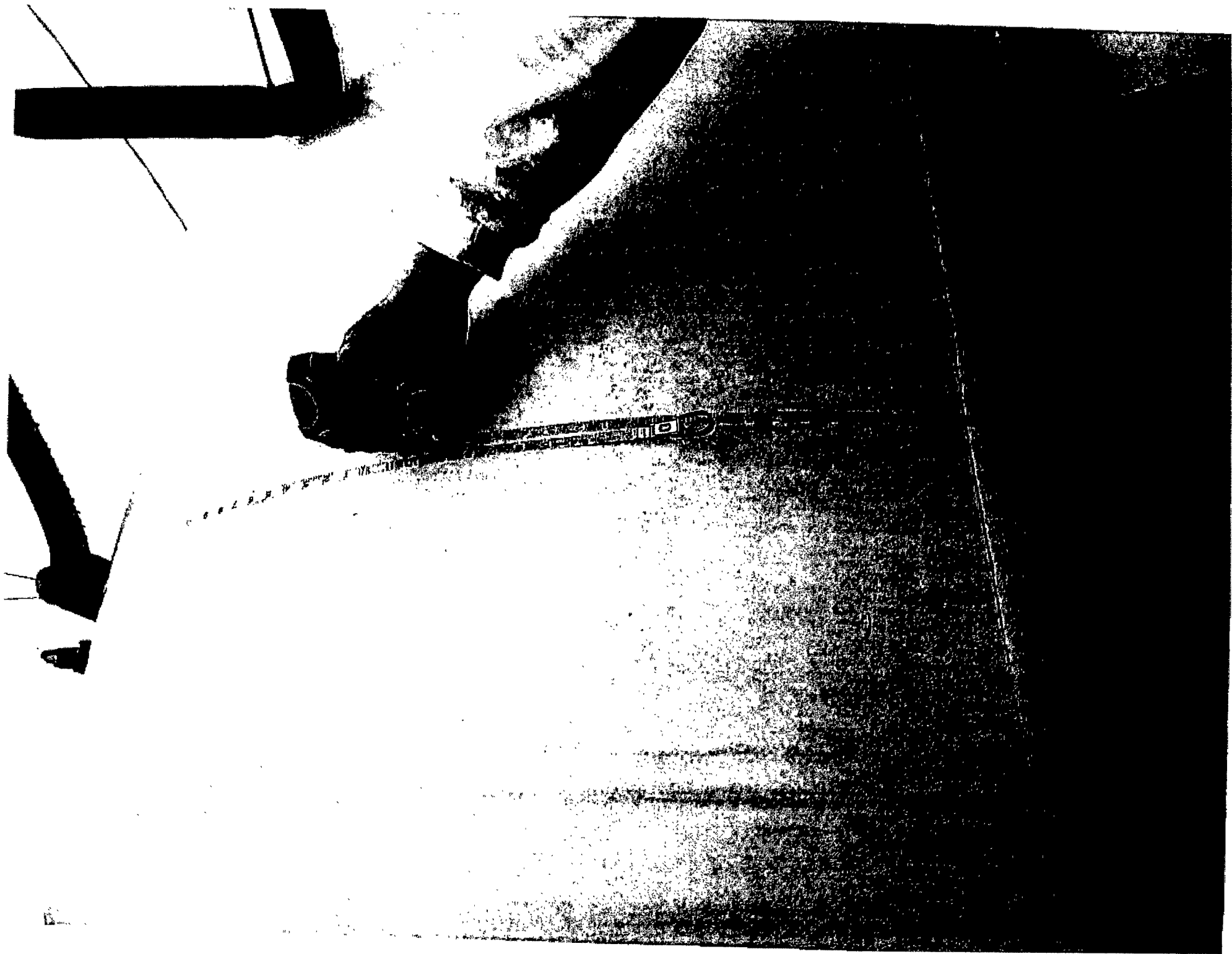
PRODUCT
SPECIFIC GRAVITY
DESIGNED SPEC

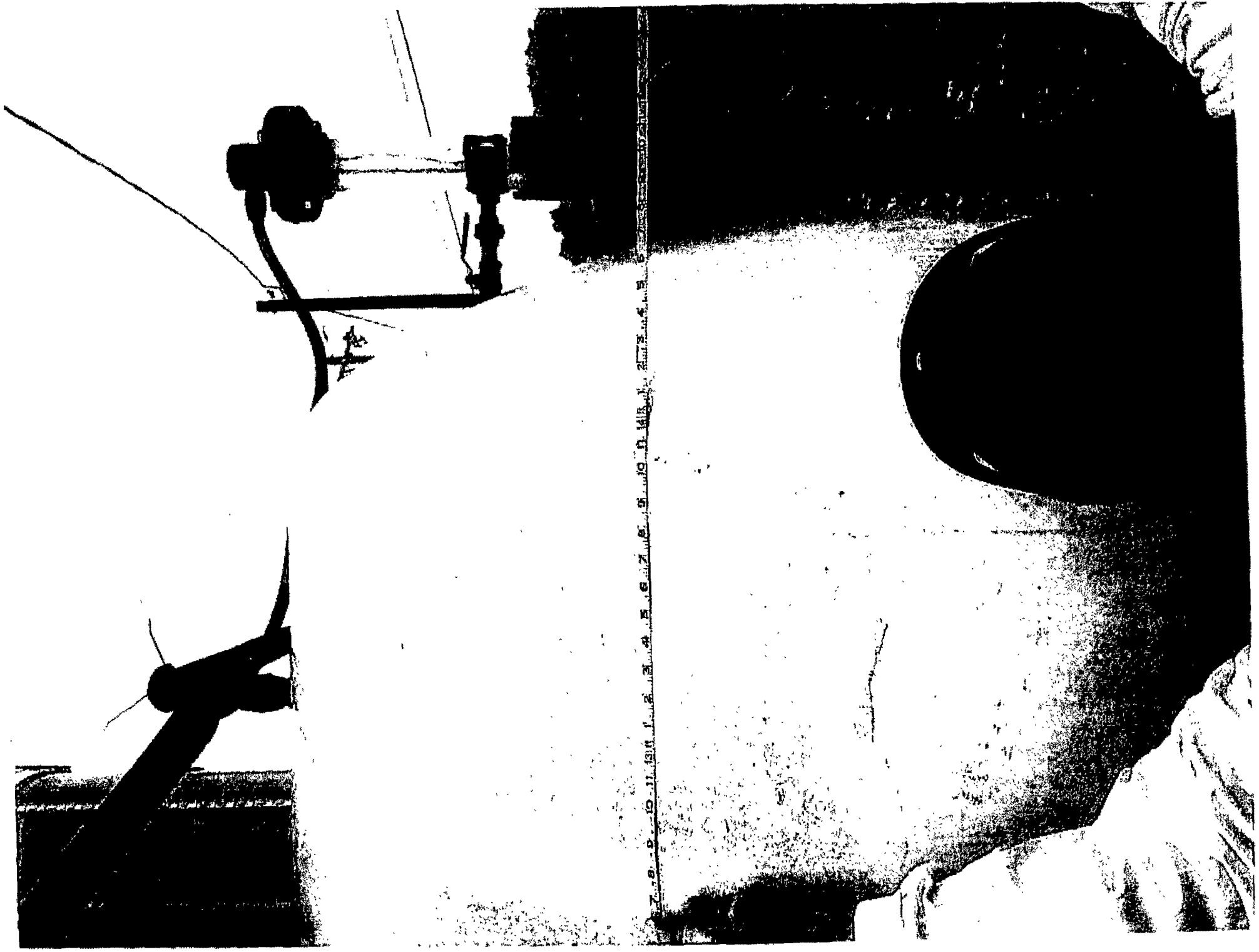
MAX OPERATING PRESSURE DO NOT EXCEED
PRESSURE VACUUM
OZ/SQ IN OZ/SQ IN

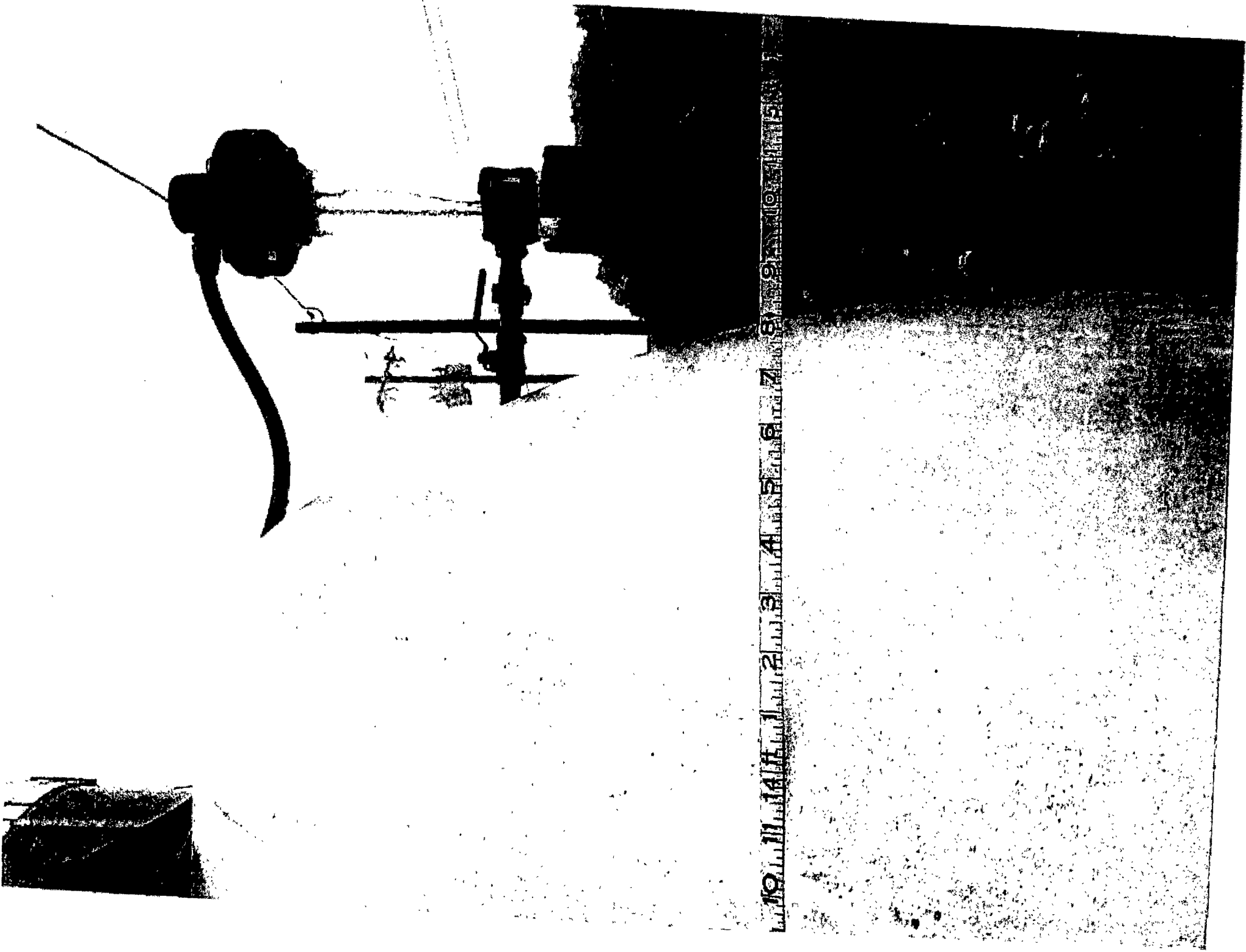
ROOF RSE
ROOF LOAD

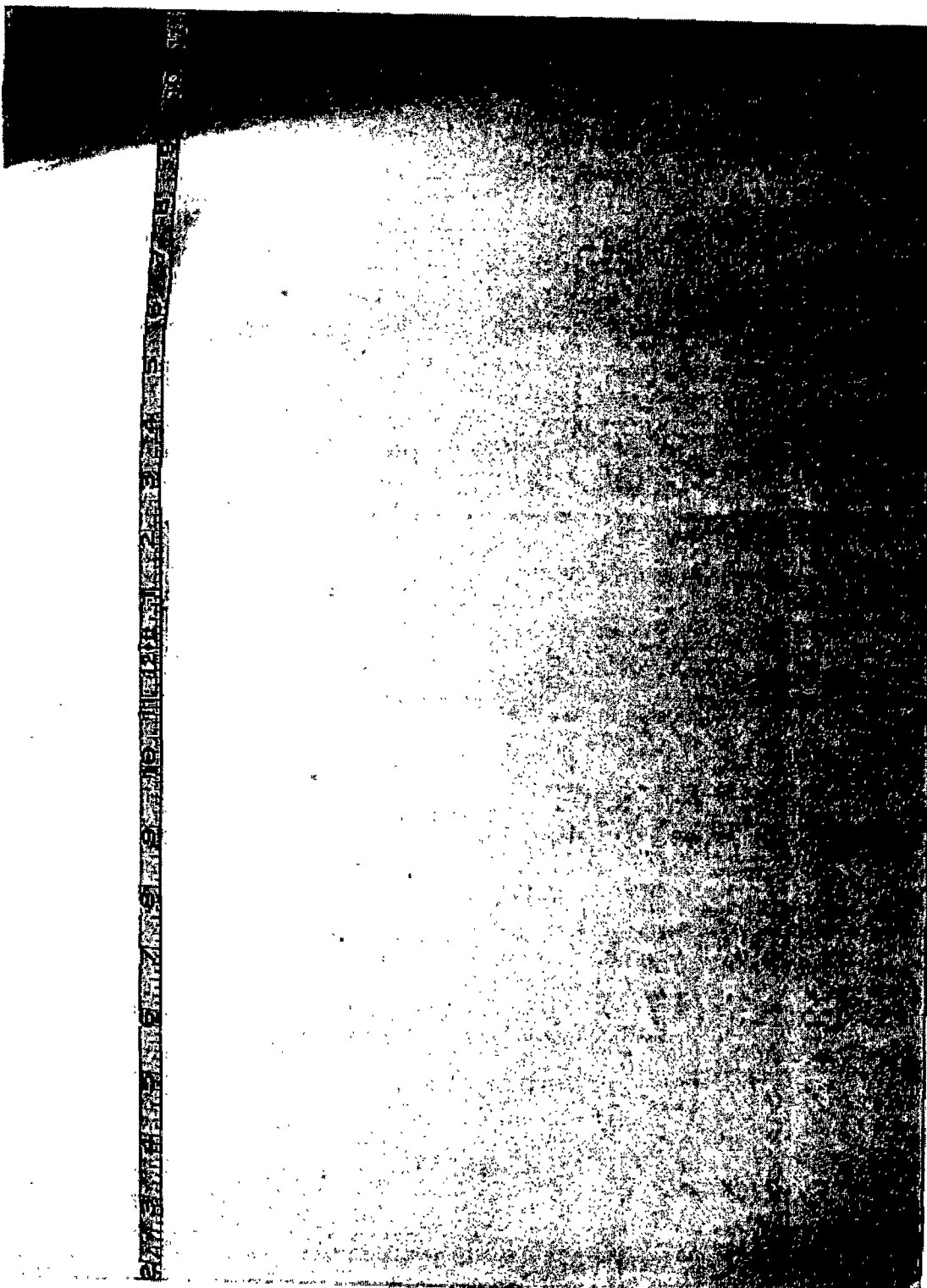
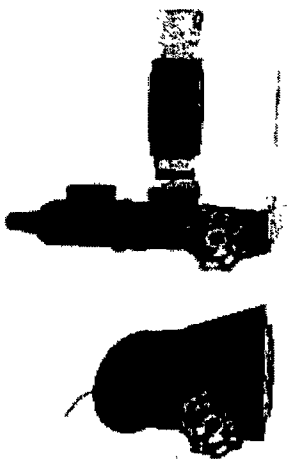








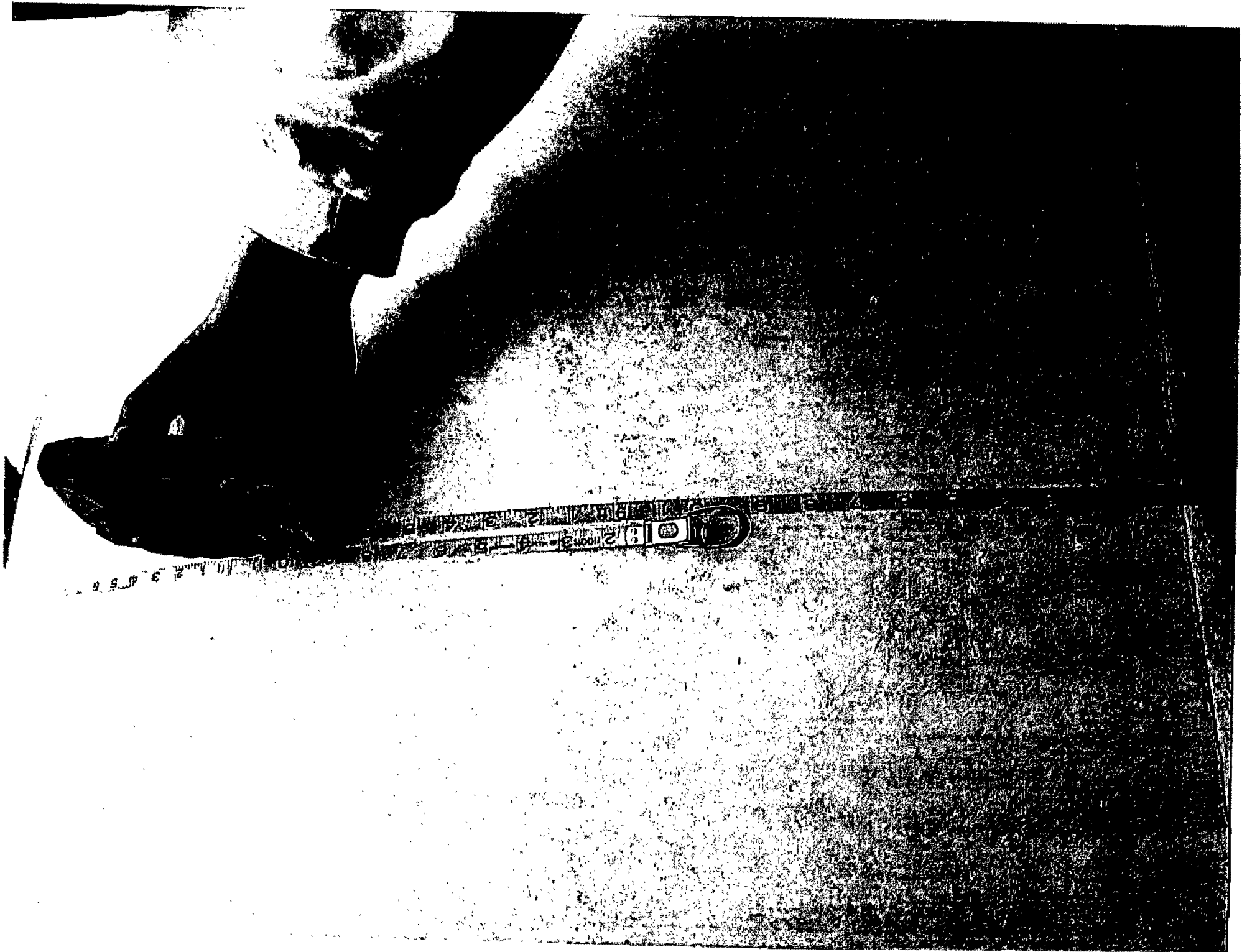




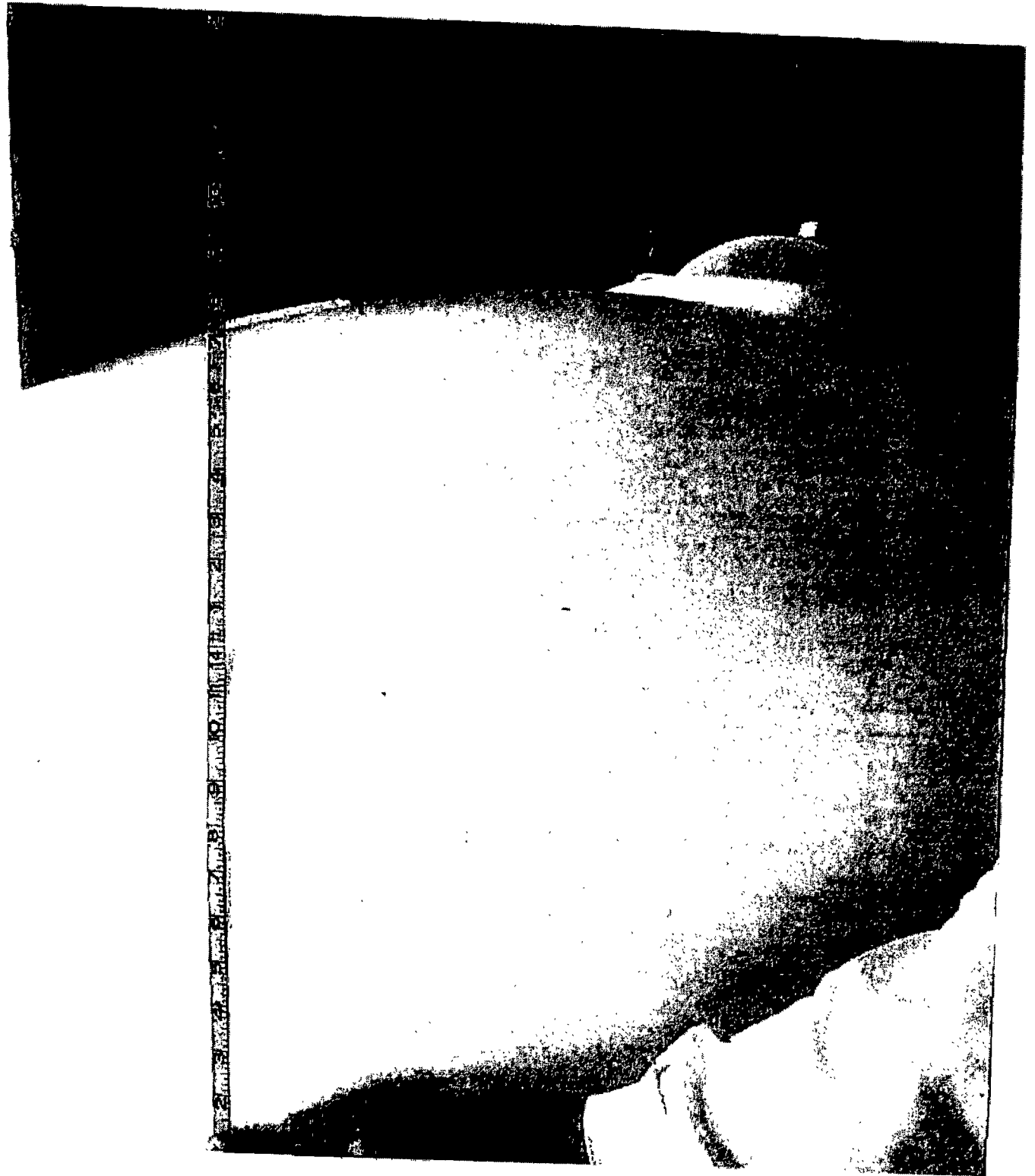
ATTACHMENT "D.3"

PHOTOS

**ONE – 2,500 GALLON
HYDRO TANK NO. 2 AT THE
MADRONA WATER PLANT**





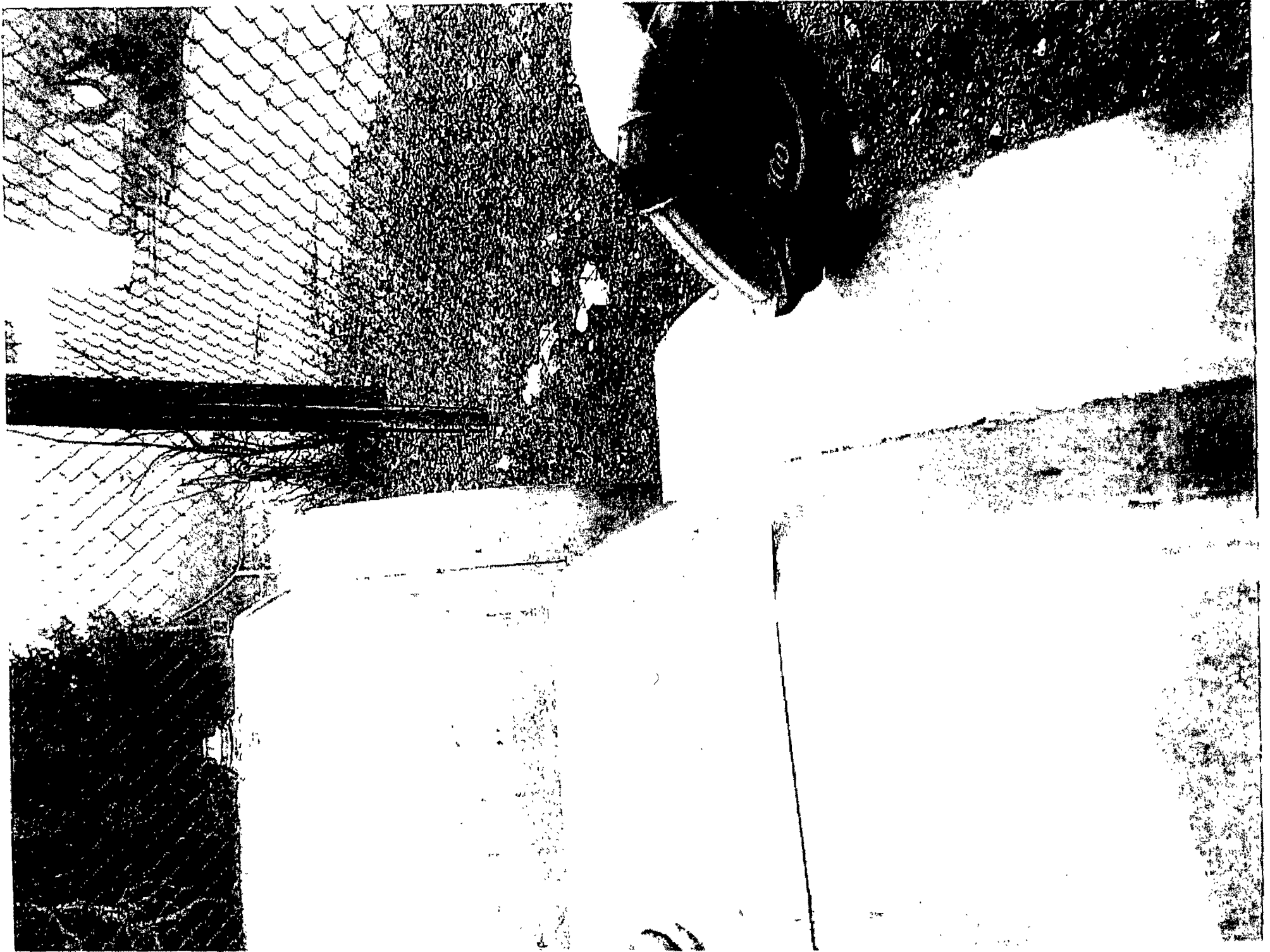


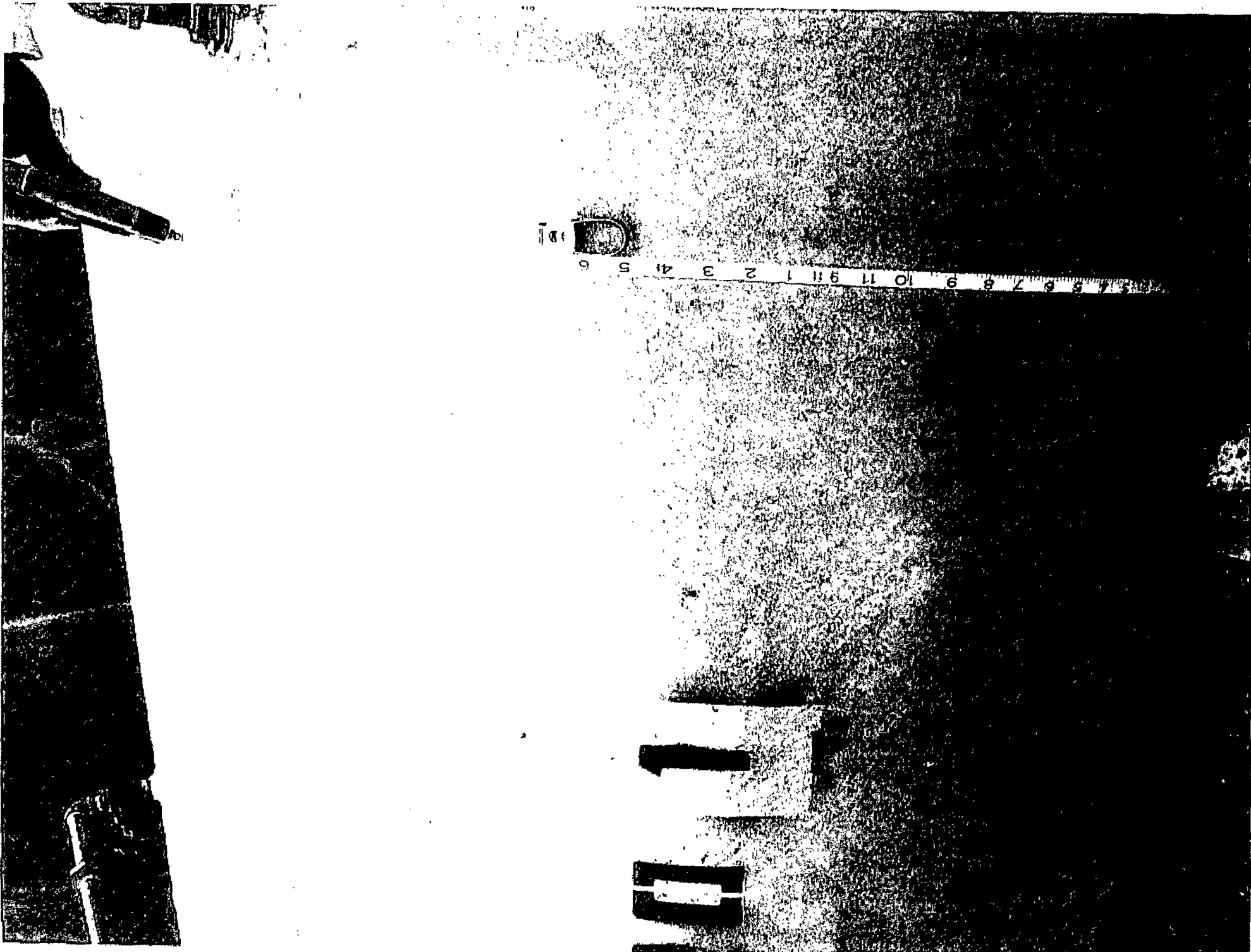
ATTACHMENT "D.4"

PHOTOS

**ONE – 550 GALLON
HYDRO TANK NO. 1 AT THE
SILVER CREEK WATER PLANT**



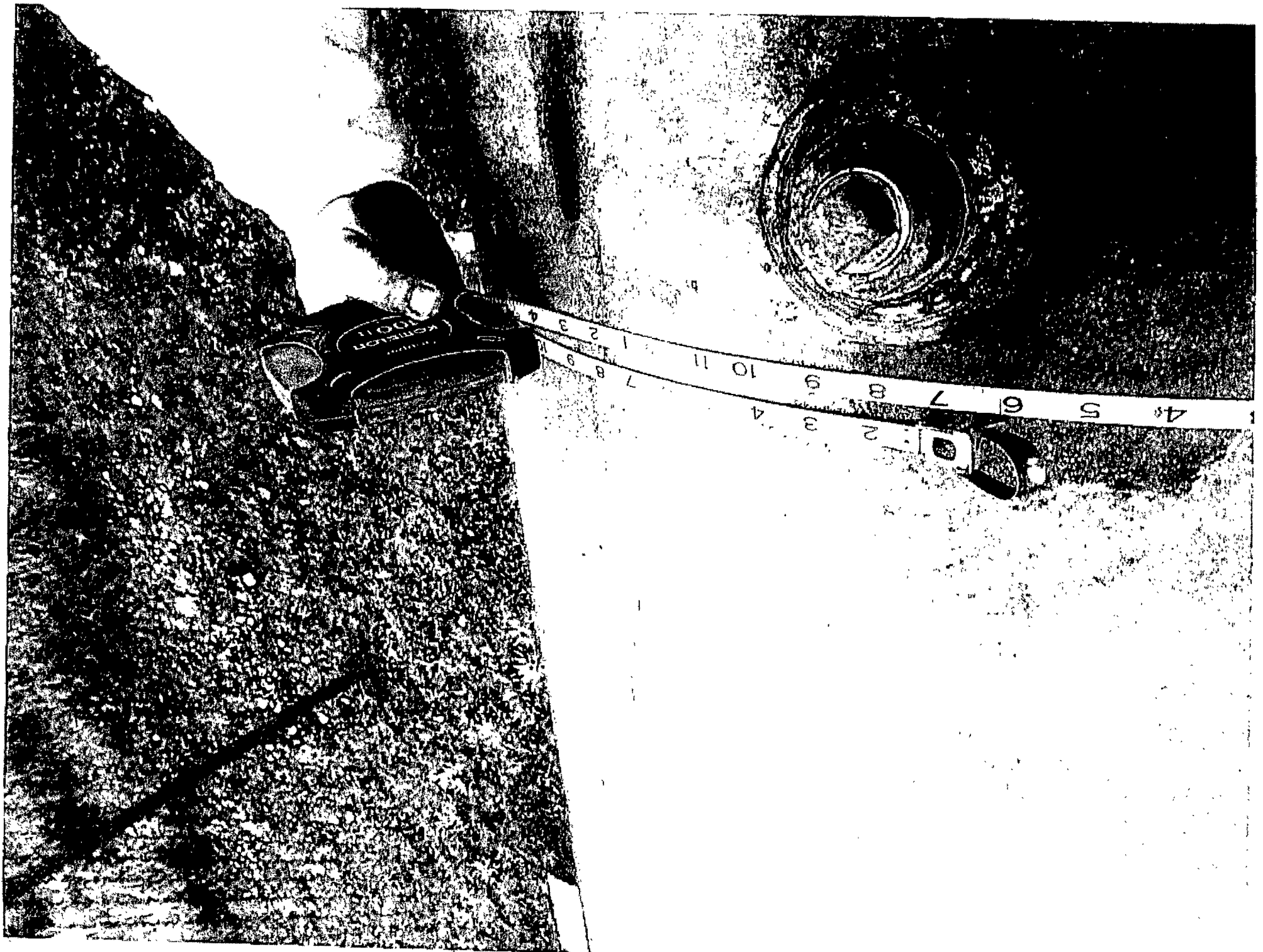


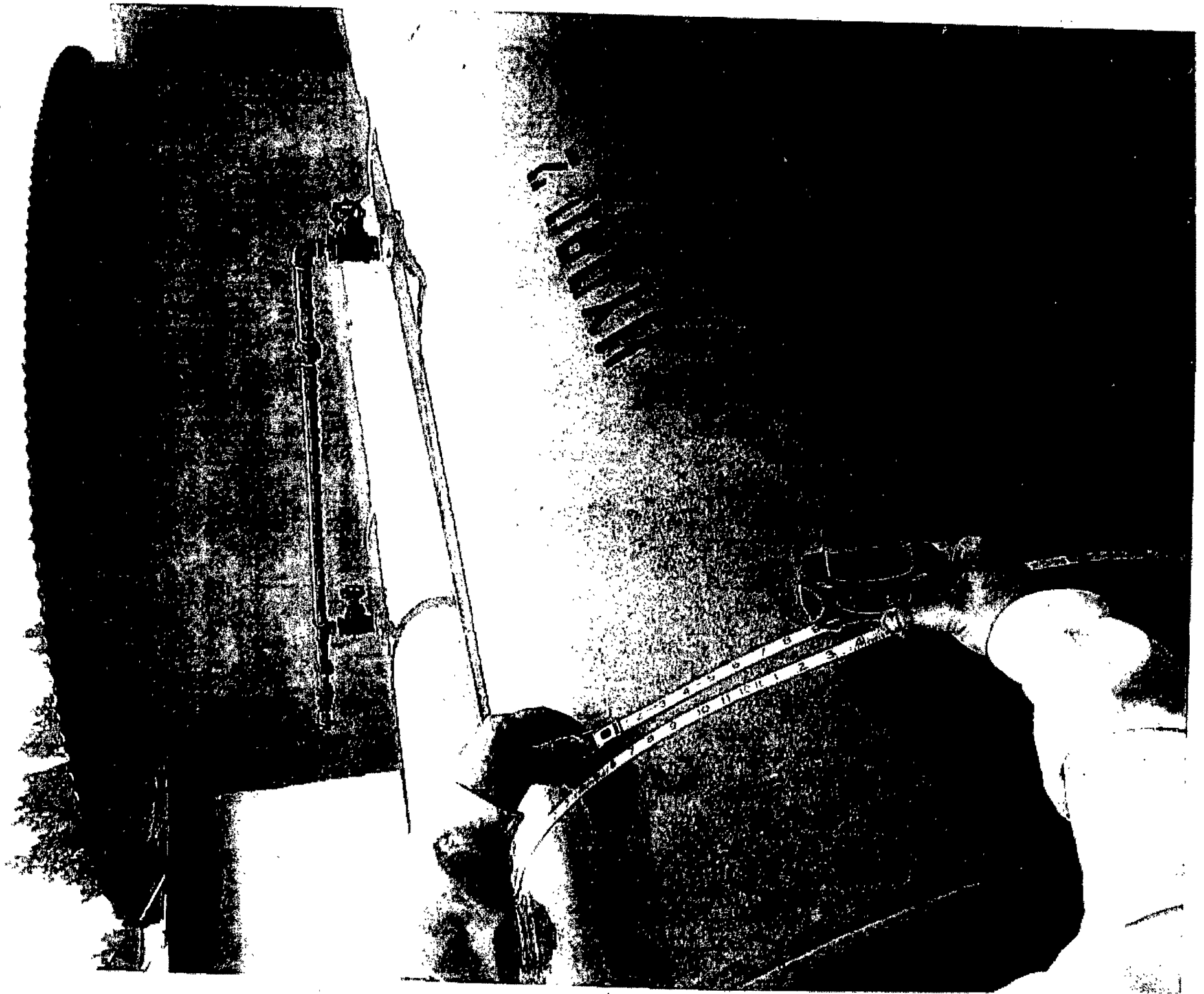


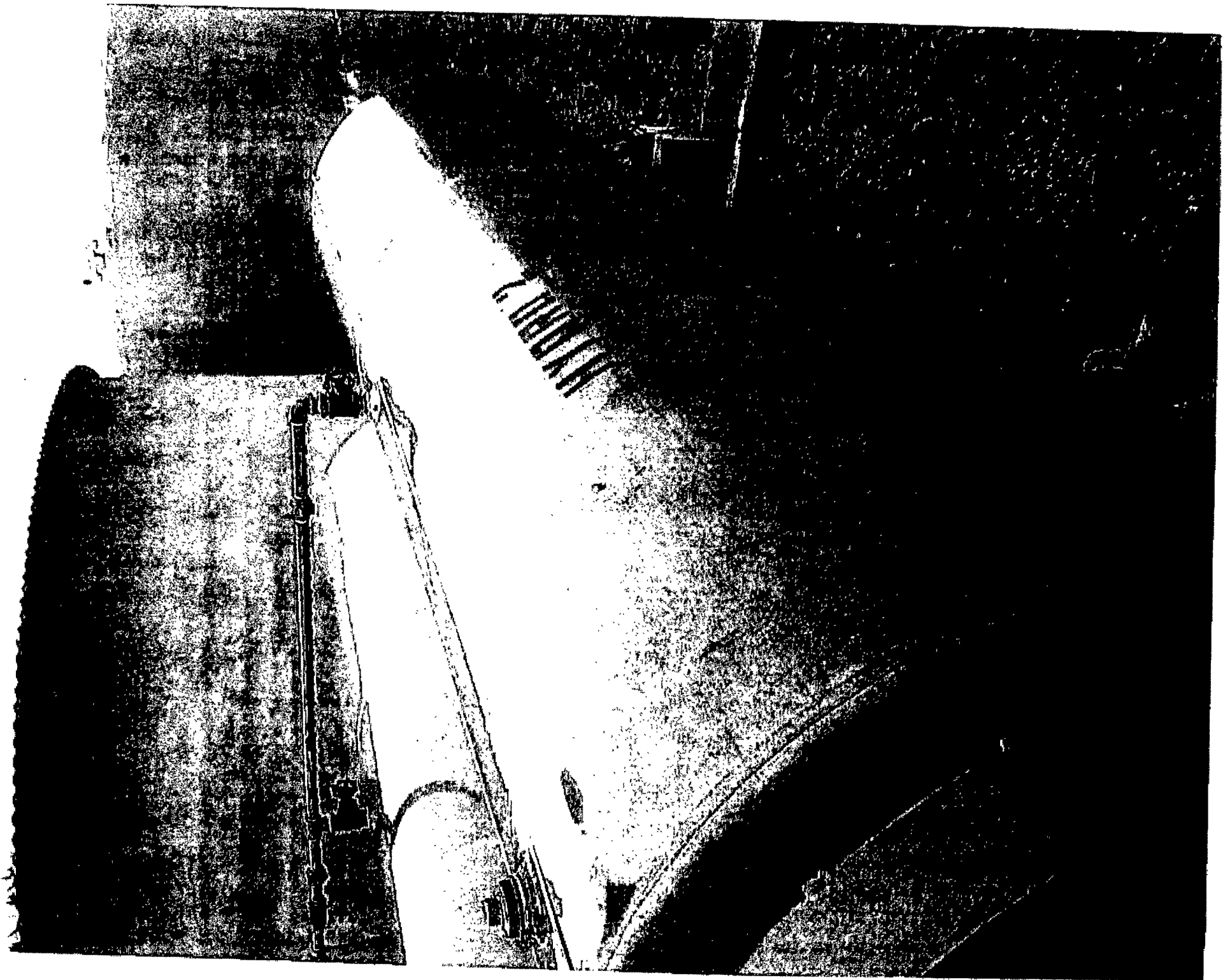
ATTACHMENT "D.5"

PHOTOS

**ONE – 550 GALLON
HYDRO TANK NO. 2 AT THE
SILVER CREEK WATER PLANT**









ATTACHMENT "D.6"

**PHOTOS OF SERVICE PUMP NOS. 1 AND 2
AT THE MADRONA PLANT
5 HP / 100 GPM EACH**

156-997

THE ROCK, AR USA

JACUZZI BROS.

JACUZZI

ORDER NO. / NO. DE COMMANDE

156-997

156-997

156-997

Handwritten text on a white label, oriented upside down: "KANDROVA" and "BPRZ SHP".

Handwritten text on the container: "EAST BROOK, AK USA".



Handwritten text on the container: "2M".

ATTACHMENT "D.7"

**PHOTOS OF SERVICE PUMP NOS. 1 AND 2
AT THE SILVER CREEK PLANT
5 HP / 100 GPM EACH**

6015101

PRODUCT

FRANKLIN ELECTRIC

ORDER NUMBER 32119151

MODEL

Franklin Electric



SILVER MESS
B#2 547

5

12-30098P

98 190131

5



DEL 3001.5

FRANK

15101

ATTACHMENT "E"

**PUMP CURVE AND COST ESTIMATE FOR TWO NEW
150 GPM, 7.5 HP SERVICE PUMPS FOR THE
MADRONA WATER PLANT**

Kerr Country Pump Company LP

1150 Sidney Baker South
Kerrville, TX 78028

830-257-4107
Kerrpump@hctc.net

Estimate

Date	Estimate #
3/16/2018	869

Name / Address
Southwest Water 12535 Reed Rd. Sugar Land, TX 77478

				Project
Description	Qty	Cost	Total	
Madrona - Kerrville				
7 1/2 HP 3PH 75FPDB 1 1/2T Franklin Centrifugal Pump	2	2,695.00	5,390.00	
ESP 200 Starters	2	600.00	1,200.00	
30 Amp 3PH Seimans	2	350.00	700.00	
2" Check valves	2	95.00	190.00	
Misc. plumbing	1	500.00	500.00	
Misc. electric	1	200.00	200.00	
Estimated Freight Charges	1	75.00	75.00	
Fuel Surcharge	1	10.00	10.00	
Estimated Service Time Hours	12	116.66667	1,400.00	
Subtotal			\$9,665.00	
Sales Tax (8.25%)			\$0.00	
Total			\$9,665.00	

****Other sizes and materials available - if estimate is not accepted within 30 days, price is subject to change. Labor is estimated. Any additional labor, materials, ditching, etc. will be billed accordingly. Payment to be made at 1/2 down and balance due upon completion. Kerr Country Pump is not responsible for water quantity or quality. We propose hereby to furnish material and labor - complete in accordance with above specifications. Regulated by Texas Department of Licensing and Regulation P. O. Box 12137 Austin, TX 78711 800-803-9209 - License #41031**

ACCEPTED: _____

Signature

Pump Size: 1-1/2 x 2 x 6 M

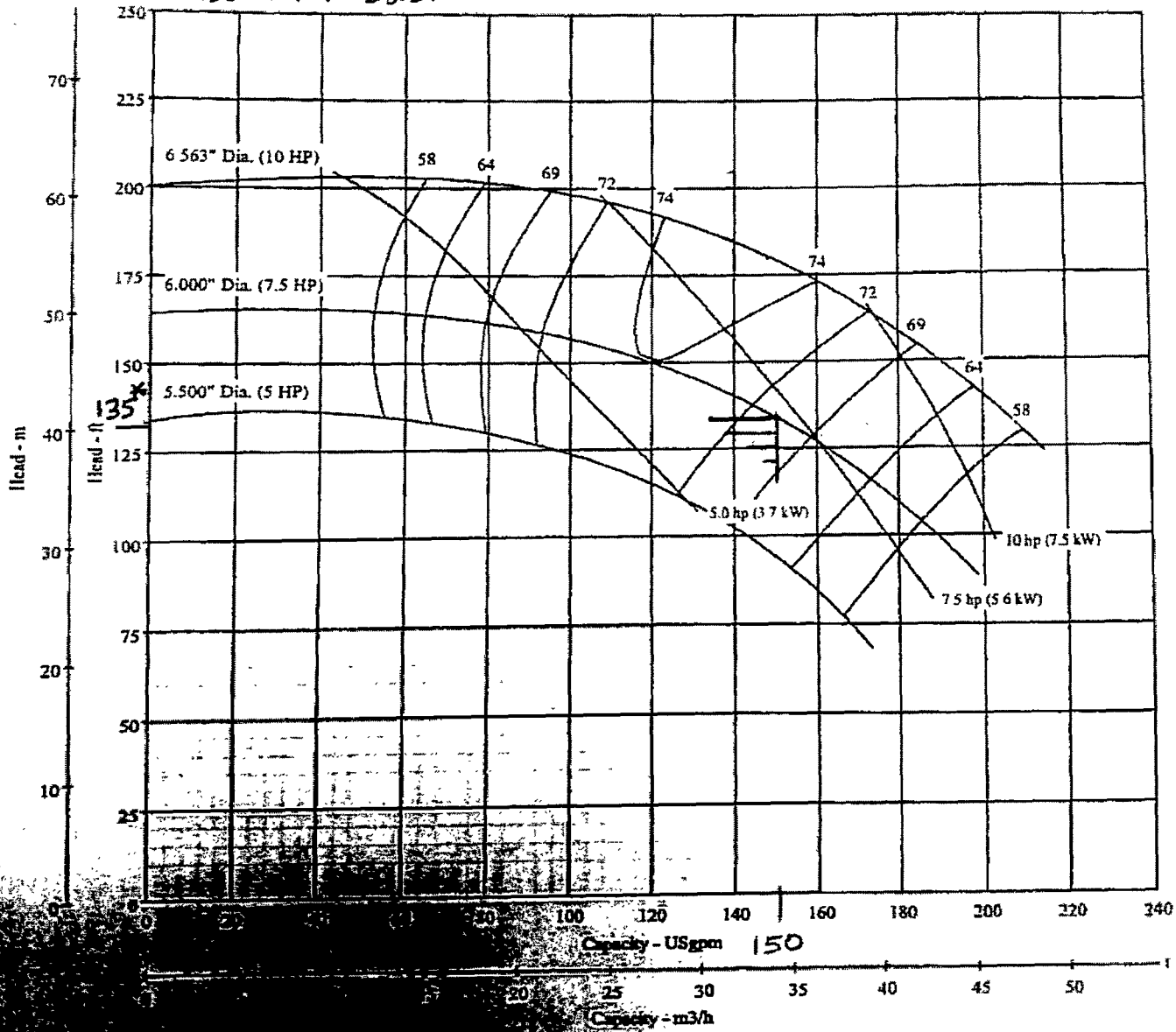
Model: B1-1/2T_M

Curve No. 8888

Type	CCMD	FM CPLG	FM BELT	SAE	Hydraulic	AC Engine
Model	B1-1/2TPM					B1-1/2TQMS-11 (6.13" Diameter Impeller)

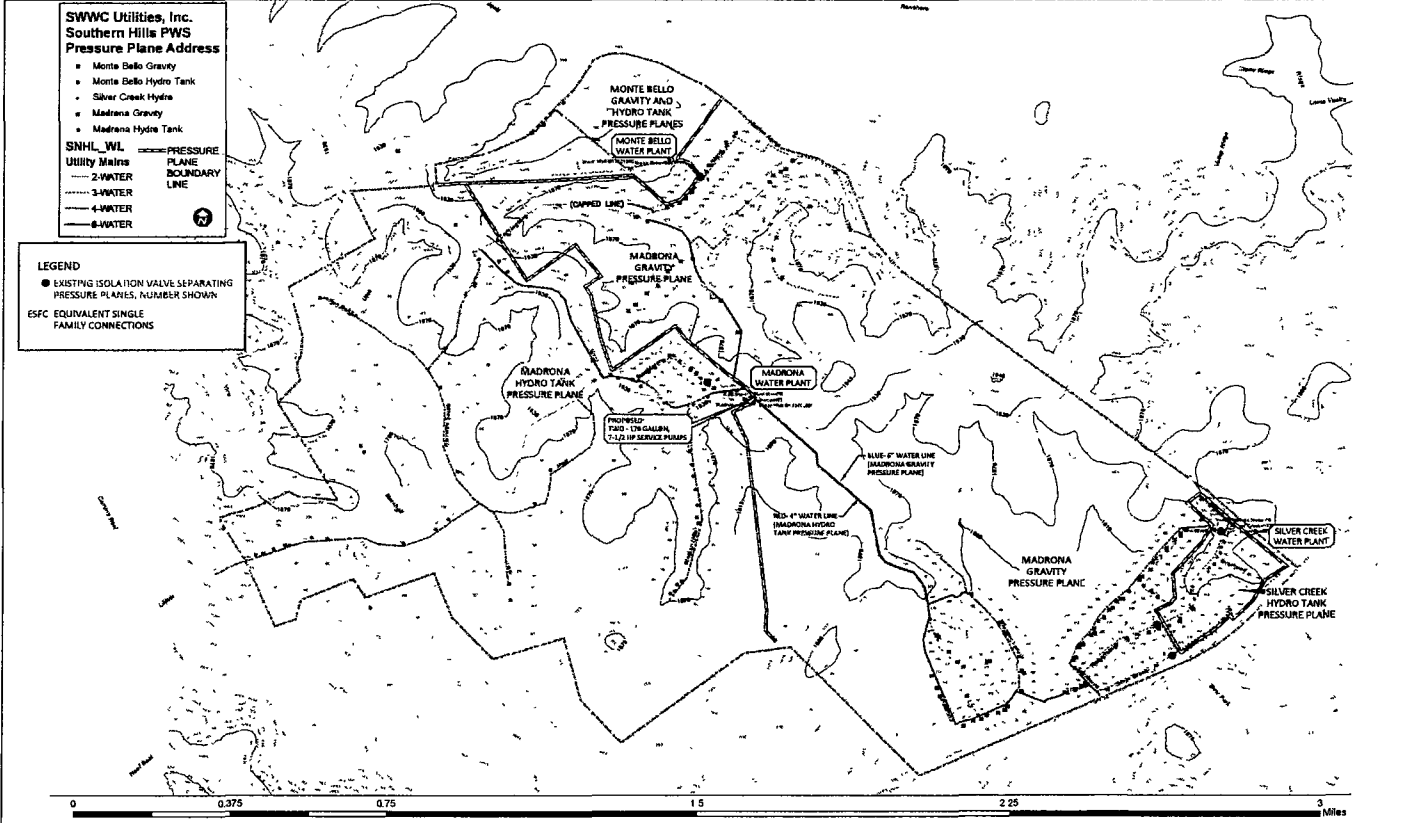
Nominal RPM: 3450
 Based on Fresh Water @ 68°F (20°C)
 Maximum Working Pressure: 150 PSI (10 BAR)

* 135 FT. TDH = 58.5 PSI



Capacity - USgpm 150
 Capacity - m³/h

DATE: 08/11/10 BY: J. H. HARRIS, J. H. HARRIS



SOUTHERN HILLS PWS SERVICE AREA,
PRESSURE PLANES AND WATER DISTRIBUTION SYSTEM

FIGURE 3

S. D. KALLMAN, L.P.
 Engineers and Environmental Consultants
 1100 North West, Suite 101
 Portland, OR 97209
 Phone: (503) 255-1000
 Fax: (503) 255-1000
 www.sdkallman.com

DOCKET 48060

RESPONSE TO DEFICIENCY 5

KAP Water Supply

DATE: September 25, 2017

SWWC Utilities, Inc., DBA
Water Services, Inc.
12535 Reed Road
Sugar Land, Texas 77478-2837

RE: Decertification of KAP WATER SUPPLY (CCN N0064) water service area located in Kestrel Air Park Subdivision, Comal County, Texas

To Whom It May Concern:

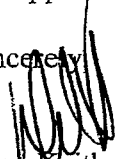
The above referenced CCN, being a 14.961 acre service area, more fully described in the exhibit attached hereto and made part hereof, is the water service area of KAP Water Company (KAP) CCN Number N0064.

The purpose of this letter is to acknowledge KAP's desire to decertify the area highlighted on the attached map from its CCN N0064 so that Water Services, Inc. may incorporate those areas into its Windmill/Kestrel Air Park water service area.

We note that KAP does not now, nor has it ever, supplied drinking water service to customers within the area highlighted on the attached maps. KAP shall decertify the area for no compensation under Texas Water Code §13.254 and improvements to serve the area shall be at the sole cost of developer under Texas Water Code §13.2502. If you agree with our intent to decertify the identified area pursuant to the terms of this letter, please so indicate by signing in the area indicated below and returning it to my attention.

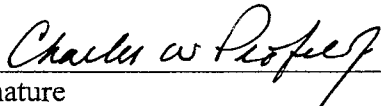
We appreciate your consideration in this matter.

Sincerely,


Dave Keith
DJL Ventures, Inc. and KAP Water Supply
AUTHORIZING SIGNATURE

WATER SERVICES, Inc.

CHARLES W. PROFILET, JR
Printed Name

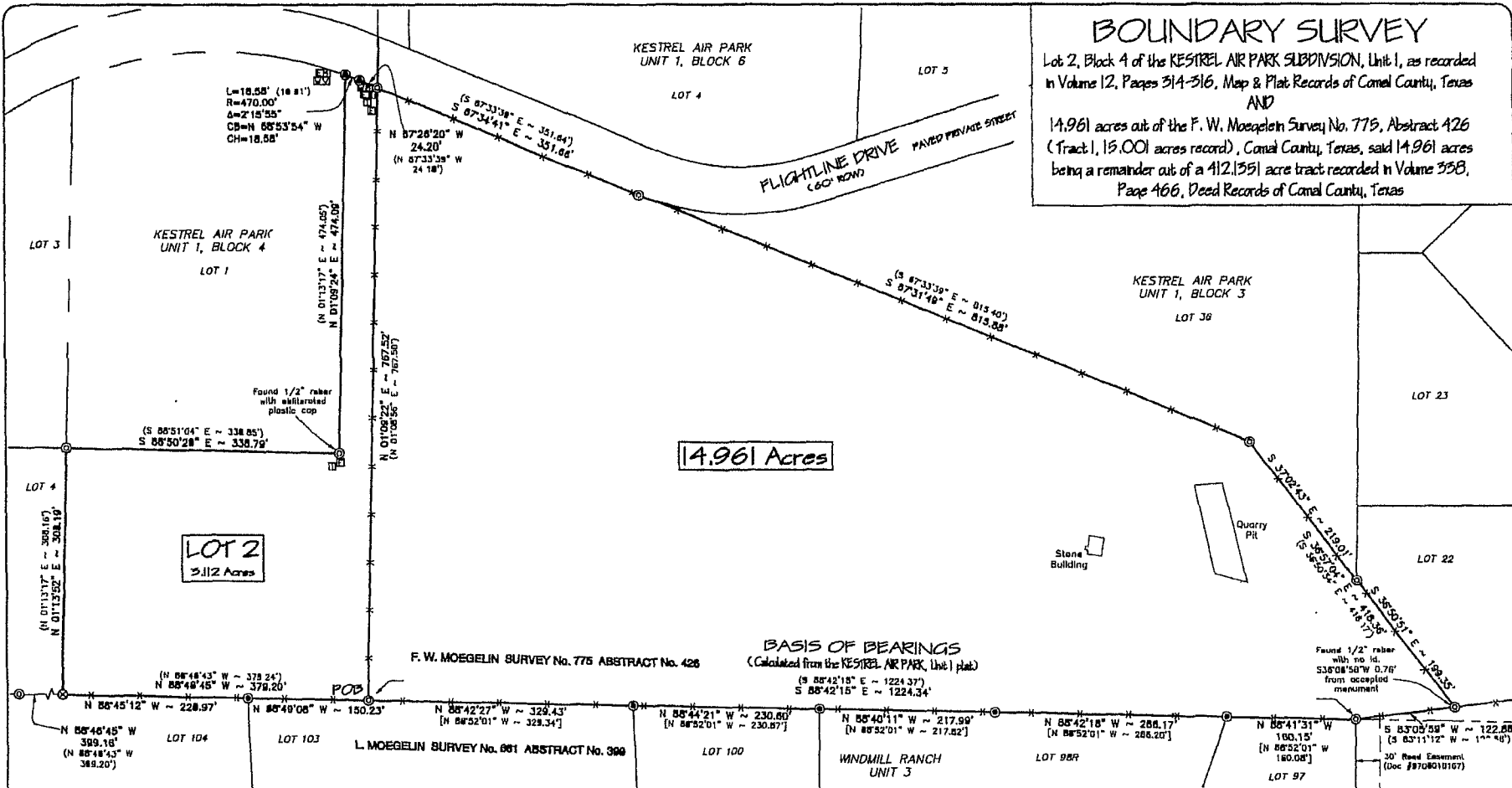

Signature

VICE PRESIDENT
Title

4-9-18
Date

BOUNDARY SURVEY

Lot 2, Block 4 of the KESTREL AIR PARK SUBDIVISION, Unit 1, as recorded in Volume 12, Pages 314-316, Map & Plat Records of Comal County, Texas AND 14.961 acres out of the F. W. Moegelin Survey No. 775, Abstract 426 (Tract 1, 15.001 acres record), Comal County, Texas, said 14.961 acres being a remainder out of a 412.1551 acre tract recorded in Volume 358, Page 466, Deed Records of Comal County, Texas



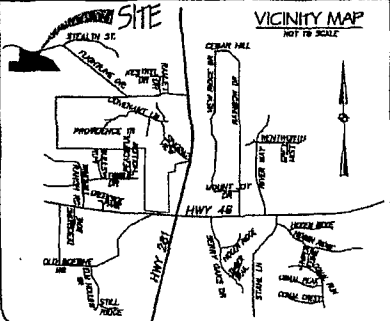
14.961 Acres

BASIS OF BEARINGS

(Calculated from the KESTREL AIR PARK, Unit 1 plat)

(S 88°42'15" E ~ 1224.37'
S 88°42'15" E ~ 1224.34'

KAP Water Supply

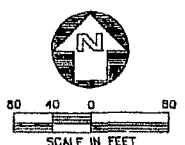


SURVEY NOTES

- OWNER / SITUS: James R. Laininger / Flightline Drive
- DATE OF SURVEY: October 1, 2008.
- BASIS OF BEARINGS: As shown hereon this survey plat.
- REFERENCES:
 - Vol. 12, Pgs. 314-316, MPR, Kestrel Air Park Subdivision Plat
 - Vol. 13, Pgs. 33-36, MPR, Windmill Ranch Subdivision Plat
 - Vol. 338, Pg. 486, DR, Deed for 412.1351 acre tract
 - Doc. #9708018167, OPR, Deed for Tract 3 - 193 acre tract
- THE FEMA FIRM PANEL #405463-0035-C, dated September 29, 1986, shows the located location of the subject property is located in ZONE "C", which IS NOT a special flood hazard area (SFHA).

LEGEND

- ⊗ Set MAG nail with plastic washer "LANDMARK SURVEYING"
- ⊙ Found 1/2" rebar with plastic cap "ACS INC"
- ⊕ Found 1/2" rebar with plastic cap "DMC 3403"
- ⊙ Found 1/2" rebar with no identification (unless noted otherwise)
- () Record Dimensions per Vol. 12, Pgs. 314-316, MPR
- [] Record Dimensions per Vol. 13, Pgs. 33-36, MPR
- MPR Map & Plat Records
- OPR Official Public Records
- DR Deed Records
- BSL Building Setback Line
- PUE Public Utilities Easement
- ⊖ Power Pole
- ⊖ Meter Pole
- x — x — Wire Fence
- ⊖ Water Meter
- ⊖ Water Valve
- ⊖ Electric Meter
- ⊖ Electric Box
- ⊖ Electric Transformer
- ⊖ Telephone Pedestal



CERTIFICATION

I hereby certify that this plat conforms to the minimum standards set forth by the Texas Board of Professional Land Surveying and is based upon an actual survey made on the ground under my supervision.

October 13, 2008
DATE

Robert S. Rugloaki
TEXAS RPLS #8002
JOB #10809241

LANDMARK SURVEYING
320 TRIN CANYON DRIVE
BOERNE, TEXAS 78006
E-MAIL: landmarksurveying@aol.com
PHONE: (830) 822-0594