

**CITY OF KRUM  
MASCH BRANCH ROAD WATER WELL**

**ADDENDUM NO. 1  
JUNE 17<sup>th</sup>, 2020**

BID DATE: Tuesday, June 23<sup>rd</sup>, 2020, 2:00 p.m.

***The following additions, deletions, modifications, or clarifications shall be made to the appropriate sections of the plans and specifications and shall become a part of the Contract Documents. Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid form.***

**QUESTIONS:**

**NOTE: Any questions from CIVCAST not answered in this addendum will be answered in subsequent addendum.**

1. The drawings have the column pipe labeled as 4" stainless steel. The documents shows schedule 40 black steel. Which is correct?
  - a. The 4" column pipe needs to be stainless steel to meet TCEQ requirements.
2. Is there an air line and/or drawdown tube to be installed that is not listed in the plans? If so, what material is to be used?
  - a. 1" measuring tube per NTGCD (North Texas Ground Conservation District) requirements. The material will be PVC. It will be addressed in the following addenda.
3. What is the slot size of the of the rod-based SS screen? What is the mesh size of the gravel filter pack?
  - a. The slot size and mesh size should be based on the geophysical logs and well performance testing.
4. Are there any precise, specific bid lines for the scope of work for each phase of well construction/project?
  - a. No specific bid items for each phase of well construction. Bid Item A-02 will be updated to lump sum.
5. Will Pro Oil & Gas be responsible for providing geophysical logging and sieve analysis after completion of the 8" pilot hole? If so, what logs will be required (Specs to bid did not state that logging is required, it may be required, including cement bond log)? Who is responsible for calling final TD and screen setting?
  - a. Contractor will be required to submit reports required per NTGCD (North Texas ground Conservation District). List of required logs will be added to the specs.
  - b. Contractor to work with Engineer and Owner to verify formation.
6. Can cuttings be disposed on-site or must be hauled away off-site?
  - a. Cuttings will need to be hauled off site.
7. Can produced water from well development and pump test be discharged on-site, or will the water have to be contained and hauled off-site?
  - a. Per Spec 33 21 00 Section 3.04.E.2, the disposal of the water will not create a nuisance or endanger adjacent property and comply with requirements of authorities having jurisdiction.
8. What device will be used in completed well to measure pumping level/static level/drawdown?
  - a. The air line will be used to measure pumping level/static level/drawdown.
9. What are any other water well specific design points and/or bid items that can be articulated that are not evident in the Specs or Drawings?
  - a. Please refer to the addendum for any changes in specs or drawings.

10. Would you post the pre-bid meeting sign in sheet?
  - a. Uploaded under documents.
11. We see that there are a number of bond requirements for this bid. Can you confirm that these are all required?
  - a. A bid bond of 5% is required. If awarded the project, a performance, payment, and maintenance bond of 100% will be required.
12. What type of pits are allowed, earthen or portable?
  - a. Either are allowed. They will need to be located at the proposed pit
13. Is there an onsite water source?
  - a. There is a fire hydrant located west of the project site off of Masch Branch Road.
14. Where can the water from the pump test be discharged to?
  - a. Per Spec 33 21 00 Section 3.04.E.2, the disposal of the water will not create a nuisance or endanger adjacent property and comply with requirements of authorities having jurisdiction
15. Will there be any addendum on how to address cuttings and drill fluids?
  - a. Cuttings will need to be hauled off site.
  - b. Per Spec 33 21 00 Section 3.04.E.2, the disposal of the water will not create a nuisance or endanger adjacent property and comply with requirements of authorities having jurisdiction
16. In the specs, it is stated that a CD is required with a copy of the bid packet, can we submit this via USB instead?
  - a. A new USB will be an acceptable format to submit a digital copy of the bid.
17. What material is the air line made of?
  - a. 1" PVC

**CONTRACT DOCUMENTS:**

**SPECIFICATIONS:**

- A1-1 Bid Proposal Form
- A. Replace Bid Proposal Form with Attached
- A1-2 00 73 00 Supplementary Conditions
- A. Modify SC 5.01.B
    - i. "G. In addition to the Performance and Payment Bonds, Contractor shall provide a Maintenance Bond as specified in Section 01 78 20 "Maintenance Bond Requirements" in the amount of ~~25~~ **100** percent of the Contract Price. This bond is to become effective the date of the expiration of the one-year correction period specified in Paragraph 13.07 for all or any part of the Project so designated in accordance with GC-14.04, and shall remain in effect for a period of one year after the expiration of the one-year correction period, except as provided otherwise by Laws or Regulations."
- A1-3 01 29 01 Measurement and Basis for Payment
- A. Modify Paragraph 1.04. Bid Item A-02
    - i. Measurement and payment for drilling a water supply well to a depth of 1271 feet as shown in the construction plans, including installation of 8" steel casing, gravel pack, 4" threaded steel discharge piping, cement grout seal, concrete well head pad, well screen at length as shown in the construction plans, ductile iron pipe and fittings from well head to PVC yard piping connections as shown on the construction plans, freeze protection of above ground pipes, a

submersible pump and a minimum 60 HP motor capable of producing 200 GPM, two 6-inch gate valve assemblies, double check valve assembly and fittings, one 4" water meter, raw water sample cock, 2-inch air/vacuum release valve, necessary bends and fittings, thrust blocks, well packer at top of aquifer, and any necessary well logging and well development required to complete a functional and pumping water supply well at the site as shown on the construction plans. Measurement and Payment of all above items will be priced as ~~per linear foot~~ **lump sum** and shall be full compensation for said water supply well.

- B. Add to Paragraph 1.04 Bid Item A-16
  - i. "Item A-16 – Seeding:  
Payment for seeding shall be made at the unit price bid per acre, and shall include all materials and labor necessary to furnish and install a mix in compliance with General Notes in areas indicated on the Contract Drawings and requested in writing by the Owner. Seeding and fertilizer shall be as specified in General Notes."
- C. Remove Paragraph 1.04 Bid Item B-01 and Replace with the following
  - i. "Item B-01 – Additional Screen  
Contractor to provide a unit price for VF of screen for the use of add/deduct based on the actual depth of the well."
- D. Add to Paragraph 1.04 Bid Item B-02
  - i. "Item B-02 – Additional Casing  
Contractor to provide a unit price for VF of casing for the use of add/deduct based on the actual depth of the well."
- E. Add to Paragraph 1.04 Bid Item B-03
  - i. "Item B-03 – Additional Discharge Pipe  
Contractor to provide a unit price for VF of discharge pipe for the use of add/deduct based on the actual depth of the well."
- F. Add to Paragraph 1.04 Bid Item B-04
  - i. 'Item B-04 – Additional Gravel  
Contractor to provide a unit price for VF of gravel for the use of add/deduct based on the actual depth of the well."

A1-4 33 21 00 Water Supply Wells

- A. Modify Paragraph 1.04
  - i. Minimum Tested Water Supply Well Performance Capacity: The water well pumping system shall deliver not less than ~~3200~~ **200** GPM to the Krum Ground Storage Tank.
- B. Add the following to Paragraph 1.05
  - "4. Post Drilling Requirements
    - A. Mandatory requirements:
      - 1. Geophysical logs required to be submitted upon completion of the well.
        - a. Geophysical logs must consist of a resistivity or induction curve and a spontaneous potential or gamma ray curve at a minimum.
        - b. Geophysical logs performed in the initial open-borehole are required and will consist of resistivity (self potential and gamma ray at a minimum).
        - c. Wells cased with PVC require induction and gamma ray logs.
        - d. All digital log files to be submitted in LAS format as well as printed.

2. All public supply sampling completed in accordance with TCEQ/EPA requirements must be submitted to the District.
  - a. Must provide if available:
    - i. Digital or tabulated data of water levels measured during drawdown, specific capacity, or pumping test;
    - ii. Field parameters of specific conductivity, temperature and pH of measurements made during the drawdown or pumping test; and/or
    - iii. Any laboratory analysis completed on samples collected from the well after construction and development.

5. Additional Construction Requirements

A. Measuring tube at least one in diameter to be installed from well head to the bottom most screen interval in all new wells with a capacity to produce 200 gpm or more.

1. The measuring tube shall be a separate PVC pipe connected/adjacent to the casing.”

C. Modify Paragraph 3.01

i. Proximity Well Data: Review operating and test analyses from nearby City of **Grand Prairie Krum wells attached in Appendix B.**

A1-5 Add Appendix B – Existing Krum Water Well Drill Report

**DRAWINGS:**

A1-6 Sheet G-2

A. Add General Note 53

“44. Establishment of Ground Cover

- a. Eighty percent (80%) evenly distributed ground cover, without large bare areas, shall be established after the designated areas have been completed to the lines, grades and cross sections shown on the plans and prior to final acceptance.
- b. Prior to planting, contractor shall provide the city engineer, or his designee, with the State of Texas certificate stating analysis of purity and germination of seed.
- c. Planting season and application rates: all planting shall be done between the dates specified in table 1, for each grass type except when specifically authorized in writing. The seeds planted per acre shall be of a type specified with the mixture, rate and planting dates as shown in the table 1, or as specified by the engineer.

Type	Planting Season	Seed and Rate
Type 1	March through September	Bermuda grass, Hulled 50 -LB (22.7-KG) PLS1 per acre
Type 2	October through February	Rye grass, 100-LB (45.4-KG) pls per acre combined with Bermuda grass, Hulled 20-LB (9.1-KG) PLS per acre
Other	As specified on plans	As specified on plans

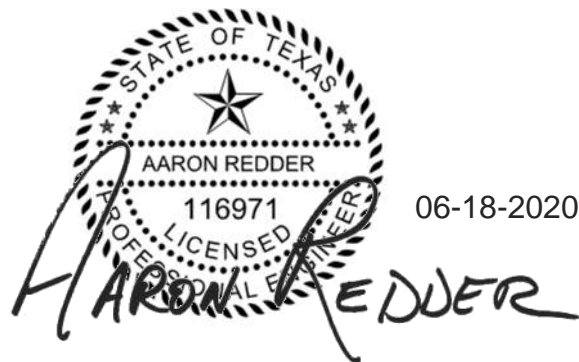
\*PLS - Pure Live Seed is determined by multiplying the gross weight times purity times the germination [For example, a 100-lb bag with 85% purity and 80% germination. (PLS=pounds in bag x Purity x germination) 100 x 0.85 x 0.8 = 60.8 -lbs of pure live seed.)

- d. Seeded areas shall be maintained, including watering and mowing, at such time and in a manner and quality to establish a minimum eighty percent (80%) evenly distributed ground cover.
- e. In lieu of silt fences, the contractor may use temporary erosion control matting and/or mulching perimeter guard to stabilize disturbed soil area.
- f. Erosion control mats used against paved areas shall have a width of no less than ten feet (10'). No hay products shall be used.
- g. All material incorporated in the construction shall be new."

A1-7

Sheet C-4

- A. Add Note 9 to General Notes
  - i. "The measuring tube shall be a separate 1" PVC pipe connected/adjacent to the casing."
- B. Add Note 10 to General Notes
  - i. "Contractor to coordinate with Engineer and Owner on total depth of well."



FREESE AND NICHOLS, INC.  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-2144

END OF ADDENDUM NO. 1

A1-1

00 41 16 Bid Form Exhibit A

<b>Project:</b>	Masch Branch Road Water Well		<b>Project No.:</b>		
<b>Owner:</b>	Greater Texoma Utility Authority on behalf of the City of Krum				
<b>Engineer:</b>	Freese and Nichols, Inc.		KRU17379		
<b>Offeror:</b>					
<b>Base Bid</b>					
Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Extended Amount
<b>Items in Base Bid (excluding Allowances) per Section 01 29 01 "Measurement and Basis for Payment"</b>					
A-01	Mobilization (5%)	1	LS		
A-02	Straight 8" Diameter Water Well	1	LS		
A-03	Chlorine & Ammonia Disinfection System	1	LS		
A-04	Electrical and Controls for Disinfection Injection	1	LS		
A-05	8" PVC Yard Piping	158	LF		
A-06	8" DIP Yard Piping	10	LF		
A-07	12" Throttle Valve and Manhole	1	EA		
A-08	Trench Safety	158	LF		
A-09	Site Grading and Preparation for Water Well Head	1	LS		
A-10	Chainlink Fence	715	LF		
A-11	Chainlink Swing Gate	2	EA		
A-12	Replace Existing Gravel Drive	100	CY		
A-13	Proposed Gravel Drive and Surface	60	CY		
A-14	Connect to Existing Ground Storage Tank Inlet	1	LS		
A-15	Storm Water Pollution Prevention Plan	1	LS		
A-16	Seeding	1	AC		
A	<b>Total Base Bid Items Amount (Sum of Extended Amounts for each Base Bid Line Item)</b>				
<b>Items in Allowance per Section 01 29 01 "Measurement and Basis for Payment"</b>					
B-01	Additional Screen	1	VF		
B-02	Additional Casing	1	VF		
B-03	Additional Casing	1	VF		
B-04	Additional Discharge Pipe	1	VF		
<b>BID SUBMITTED BY:</b>					
<b>Offeror:</b>	_____				
<b>Signature:</b>	_____				
<b>Printed Name:</b>	_____				
<b>Title:</b>	_____				
<b>Date:</b>	_____				

A1-5



**APPENDIX B**  
**Existing Krum Water Well Drill Report**





**RECORD OF COMPLETION**

For

**The North Point Water Well**

**The City of Krum, Texas**

**General Contractor**

Strittmatter Irrigation and Water Well Inc.

Pilot Point, TX

940-686-5138

**Project Engineer**

Freese and Nichols Inc.

Daniel Tremper

**Project Liaison & City Inspector**

Mark Patterson

January 2011

**The North Point Water Well**

**The city of Krum, Texas**

State of Texas Water Well Report

Geophysical Log

Casing Data

Cementing Report

Pump Performance Characteristics

Production Test

Water Chemical and Bacterial Reports

Attention Owner:  
Confidentiality Privilege Notice  
on reverse side of owner's copy.

# Texas Department of Licensing and Regulation

Water Well Driller/Pump Installer Section  
P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616  
Toll free (800)803-9202

This form must be completed  
and filed with the department  
and owner **within 60 days**  
upon completion of the well.

Email address: [water.well@license.state.tx.us](mailto:water.well@license.state.tx.us) Web address: [www.license.state.tx.us](http://www.license.state.tx.us)

## WELL REPORT

### A. WELL IDENTIFICATION AND LOCATION DATA

#### 1) OWNER

Name: <b>City of Krum</b>	Address: <b>P.O. Box 217 102 W. McCart</b>	City: <b>Krum</b>	State: <b>TX</b>	Zip: <b>76249</b>
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#### 2) WELL LOCATION

Well # or # of wells drilled <b>1</b>	County: <b>Denton</b>	Physical Address: <b>152 North Point Dr</b>	City: <b>Krum</b>
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#### 3) Type of Work

New Well     Reconditioning  
 Replacement     Deepening

#### Lat.

#### Long.

Grid # **19-47-7**

#### 4) Proposed Use (check) Monitor Environmental Soil Boring Domestic Extraction

Industrial  Irrigation  Injection  Closed-Loop Geothermal  De-watering  Testwell  
 Rig Supply  Stock  Public Supply - If Public Supply, were plans approved?  Yes  No

#### 6) Drilling Date

Started **3/21/10**

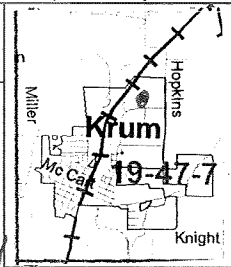
Completed **2/10/11**

#### Diameter of Hole

Dia. (in)	From (ft)	To (ft)
	Surface	<b>see Attached</b>

#### 7) Drilling Method (check)

Driven  Air Rotary  Mud Rotary  
 Bored  Air Hammer  Cable Tool  
 Jetted  Hollow Stem Auger  
 Reverse Circulation  
 Other **See Attached**



From (ft)	To (ft)	Description and color of formation material
		<b>See Attached</b>

#### 8) Borehole Completion Open Hole Straight Wall Under-reamed Gravel Packed Other

Gravel packed interval from: \_\_\_\_\_ ft. to: \_\_\_\_\_ ft. Size: \_\_\_\_\_

#### Casing, Blank Pipe, and Well Screen Data

Dia. (in.)	New Or Used	Steel, Plastic, etc. Perf., Slotted, etc Screen Mfg., if commercial	Setting (ft)		Gage Casing Screen
			From	To	
		<b>See Attached</b>			

#### 9) Annular Seal Data: i.e. (from 0 ft to 100 ft #sacks & material 13 cement)

from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. #sacks & material \_\_\_\_\_  
from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. #sacks & material \_\_\_\_\_  
from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. #sacks & material \_\_\_\_\_

Method Used \_\_\_\_\_ Performed By \_\_\_\_\_  
Distance to septic field or other concentrated contamination \_\_\_\_\_ ft.  
Distance to Property Line \_\_\_\_\_ ft Method **See ATTACHED**  
Verified: \_\_\_\_\_

#### 13) Plugged Well plugged within 48 hours

Casing left in well: \_\_\_\_\_ Cement/Bentonite placed in well: \_\_\_\_\_

From (ft)	To (ft)	From (ft)	To (ft)	# Sacks & Material used

#### 14) Type Pump

Turbine     Jet     Submersible     Cylinder  
 Other \_\_\_\_\_

Depth to pump bowls, cylinder, jet etc., \_\_\_\_\_ ft.

#### 15) Water Test

Type test  Pump  Bailer  Jetted  Estimated  
Yield: **260** gpm with **718** ft. drawdown after **36** hrs.

#### 16) Water Quality

Type of water \_\_\_\_\_ Depth of Strata: \_\_\_\_\_ Was a chemical analysis made?  Yes  No

Did you knowingly penetrate a strata which contains undesirable constituents?  Yes  No If yes, Continue:

Check One:  Naturally poor-quality groundwater - type \_\_\_\_\_  Hydrocarbons (i.e. gas, oil, etc.)  
 Hazardous material/waste contamination encountered  Other (describe) \_\_\_\_\_

I certify that while drilling, deepening, or otherwise altering the above described well, undesirable water or constituents was encountered and the landowner was informed that such well must be completed or plugged in such a manner as to avoid injury or pollution.

By signing this well report, I certify that I drilled or supervised the drilling of this well and that each and all of the statements herein are true and correct.

Company & Individual's Name: (type or print) **Strittmatter Irrigation Supply / Strittmatter** ALN Lic. No.: **54790**

Address: **800 N. Hwy 377** City: **Pilot Point** State: **TX** Zip: **76258**

Signature: **[Signature]** Date: **2/10/11** Signature: \_\_\_\_\_  
Licensed Driller/Pump Installer    Date    Apprentice    Apprentice Reg. Number



March 30, 2010

City of Krum, Texas  
North Point Water Well

Geophysical Log

<u>Depth (in feet)</u>	<u>Formation</u>
0 – 24	top soil and clay
24 – 201	shale and clay
201 – 238	shale – Kiamichi
238 – 301	limestone - Goodland
301 – 340	shale
340 – 360	sand streaks
360 – 370	sand
370 – 430	white/grey clay
430 – 450	sand
450 – 465	clay
465 – 472	sand
472 – 500	rock
500 – 550	shale
550 – 553	sand and shale
553 – 570	shale
570 – 576	sand
576 – 589	rock
589 – 592	sand
592 – 620	shale with rock streaks
620 – 726	rock
726 – 735	rock, few sand streaks
735 – 745	rock
745 – 751	sand
751 – 789	rock
789 – 790	sand
790 – 794	shale
794 – 795	sand
795 – 809	shale
809 – 814	sand
814 – 825	shale
825 – 829	sand
829 – 832	shale
832 – 835	sand
835 – 845	coal, shaley
845 – 855	sand
855 – 867	shale



# Strittmatter Irrigation & Water Well, Inc. Ph: 940-686-5138

800 North Hwy 377 Pilot Point, TX 76258

Fax: 940-686-2604

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867 – 872	sand
872 – 880	shale
880 – 890	sand
890 – 900	sand and shale
900 – 920	sand, (good)
920 – 946	shale
946 – 950	sand
950 – 955	shale
955 – 959	sandy shale
959 – 980	red clay
980 – 995	rock
995 – 1000	shale
1000 – 1022	sand
1022 – 1038	shale
1038 – 1072	mostly sand, few shale streaks
1072 – 1076	shaley sand
1076 – 1132	sand, (good)
1132 – 1160	shale

State License #: 54790PKW & 1435WI

Regulated by:

Texas Department of Licensing and Regulation

P.O. Box 12157

Austin, TX 78711

800-803-9202; 512-463-7880

February 9, 2011

**City of Krum, TX  
North Point Water Well**

**Record of Material Settings & Completion**

Drill 8 ½" bore hole to 1160'. Run electric log to total drilled depth. Ream bore hole to 14 ¾" diameter. Install materials as follows:

+2' – 1038'	1040' - 8 5/8" new steel casing, 28lb. per foot, T & C
1038' – 1132'	94' - 8 5/8" pipe based T-304 stainless steel screen, T & C, .020 slot
1132' – 1137'	50' - 8 5/8" new steel casing, 28lb. per foot, T & C

Install 146 cubic feet of 12/20 gravel in annular from 950' to 1137'.

Run 1 ¼" tremmie tubing inside annular to 950'. Pressure cement via Basic Energy Services, Gainesville, TX.

State License #: 54790PKW & 1435WI  
Regulated by:  
Texas Department of Licensing and Regulation  
P.O. Box 12157  
Austin, TX 78711  
800-803-9202; 512-463-7880

Commentor: Fill in shaded areas.  
Operator: Fill in other items.

RAILROAD COMMISSION OF TEXAS  
Oil and Gas Division

1. Operator's Name As shown on Form P-5, Organization Report) <b>Strittmatter</b>	2. RRC Operator No.	3. RRC District No.	4. County of Well Site <b>Denton</b>
5. Field Name Wildcat or exactly as shown on RRC records)		6. API No. <b>42-</b>	7. Drilling Permit No.
8. Lease Name <b>Krum Northpoint Waterwell</b>	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. <b>1</b>

CASING CEMENTING DATA:			SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
					Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date			<b>04/21/2010</b>					
13. *Drilled hole size			<b>14 3/4</b>					
*Est. % wash or hole enlargement			<b>15%</b>					
14. Size of casing (in. O.D.)			<b>8 5/8</b>					
15. Top of liner (ft.)								
16. Setting depth (ft.)			<b>900</b>					
17. Number of centralizers used								
18. Hrs. waiting on cement before drill-out								
1st Slurry	19. API cement used: No. of sacks		<b>500</b>					
	Class		<b>A</b>					
	Additives		<b>6% Gel</b>					
2nd Slurry	No. of sacks							
	Class							
	Additives							
3rd Slurry	No. of sacks							
	Class							
	Additives							
1st	20. Slurry pumped: Volume cu. (ft.)		<b>865</b>					
	Height (ft.)		<b>900</b>					
2nd	Volume cu. (ft.)							
	Height (ft.)							
3rd	Volume cu. (ft.)							
	Height (ft.)							
Total	Volume cu. (ft.)		<b>865</b>					
	Height (ft.)		<b>900</b>					
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?			<b>YES</b>					

22. Remarks

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
3. Cementing date								
4. Size of hole or pipe plugged (in.)								
5. Depth to bottom of tubing or drill pipe (ft.)								
6. Sacks of cement used (each plug)								
7. Slurry volume pumped (cu. ft.)								
8. Calculated top of plug (ft.)								
9. Measured top of plug, if tugged (ft.)								
10. Slurry wt. (lbs/gal)								
11. Type cement								

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Lance Jones, Cement Field Supervisor      Basic Energy Services  
 Name and title of cementer's representative      Cementing Company

*Lance Jones*  
 Signature

479 FM 1630 Gainesville, Texas 76240

(940) 665-1316  
 Tel.: Area Code Number

04/21/2010  
 Date: mo. day yr.

Address      City, State, Zip Code

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

\_\_\_\_\_  
 Typed or printed name of operator's representative

\_\_\_\_\_  
 Title

\_\_\_\_\_  
 Signature

Address      City, State, Zip Code

\_\_\_\_\_  
 Tel.: Area Code Number

\_\_\_\_\_  
 Date: mo. day yr.

### Instructions to Form W-15, Cementing Report

**IMPORTANT:** Operators and cementing companies must comply with the requirements of the Commission's Statewide Rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion), and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

**A. What to file.** An operator would file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

- 9 An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- 9 Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- 9 Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

**B. Where to file.** The appropriate Commission District Office for the county in which the well is located.

**C. Surface casing.** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

**D. Centralizers.** Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

**E. Exceptions and alternative casing programs.** The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

**F. Intermediate and production casing.** For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

**G. Plugging and abandoning.** Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

Alloy Machine Works, Inc.  
16102 E. Hardy Rd.  
Houston, TX 77073

Date Run:  
4/6/2010

Ph (900) 577-5068  
Ph (281) 233-0214  
Fax (281) 233-0487

Sold To: Strittmatter Irrigation  
Address: 800 N. Hwy 377  
City, St Zip: Pilot Point, TX

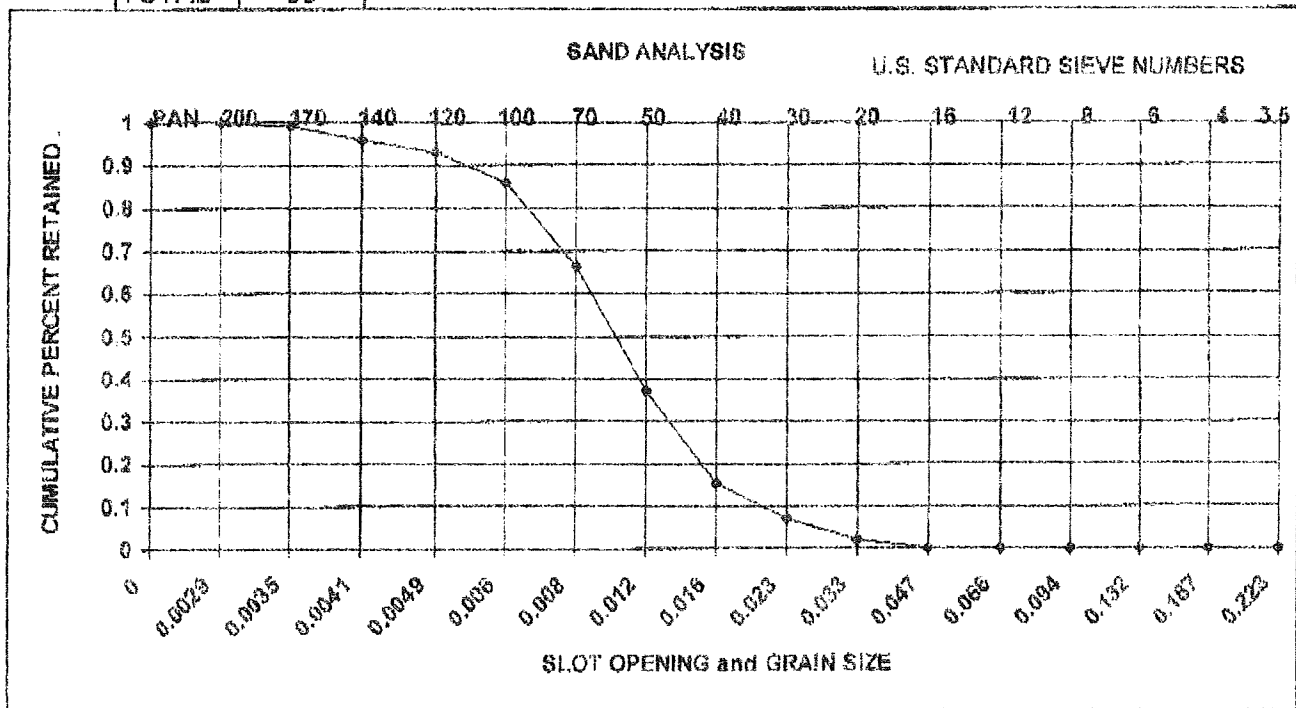
Ship To: Strittmatter Irrigation  
Address: 800 N. Hwy 377  
CSZ: Pilot Point, TX  
Contact: Allan  
Phone: (940) 686-5139  
Fax: (940) 686-2604

Driller:  
Engineer:  
Well: Krum Texas Mun. Well

U.S. SIEVE NO.	SLOT OPENING INCHES	WEIGHT RETAINED	PERCENT RETAINED	CUMULATIVE RETENTION
3.5	0.223	0	0%	0%
4	0.187	0	0%	0%
6	0.132	0	0%	0%
8	0.094	0	0%	0%
12	0.066	0	0%	0%
16	0.047	0	0%	0%
20	0.033	2	2%	2%
30	0.023	5	5%	7%
40	0.016	8	8%	15%
50	0.012	21	21%	37%
70	0.008	29	30%	66%
100	0.006	19	19%	86%
120	0.0049	7	7%	93%
140	0.0041	3	3%	96%
170	0.0035	3	3%	99%
200	0.0029	1	1%	100%
PAN	0	0	0%	100%
TOTAL		98		

Remarks

Depth (Beginning)  Depth (Ending)   
 Uniformity Coefficient D60/D10 =   
 D60 =  D10 =   
 50% Point  5-50% Pt   
 Median Gravel Size   
 Calculated Gravel Pack   <sup>x6</sup> <sup>x4</sup>  
 Recommended Slot  Gravel   
 Natural Development  Retention  
 Slot Recommendation



City of Krum, Texas  
 Northpoint Water Well  
 July, 2010

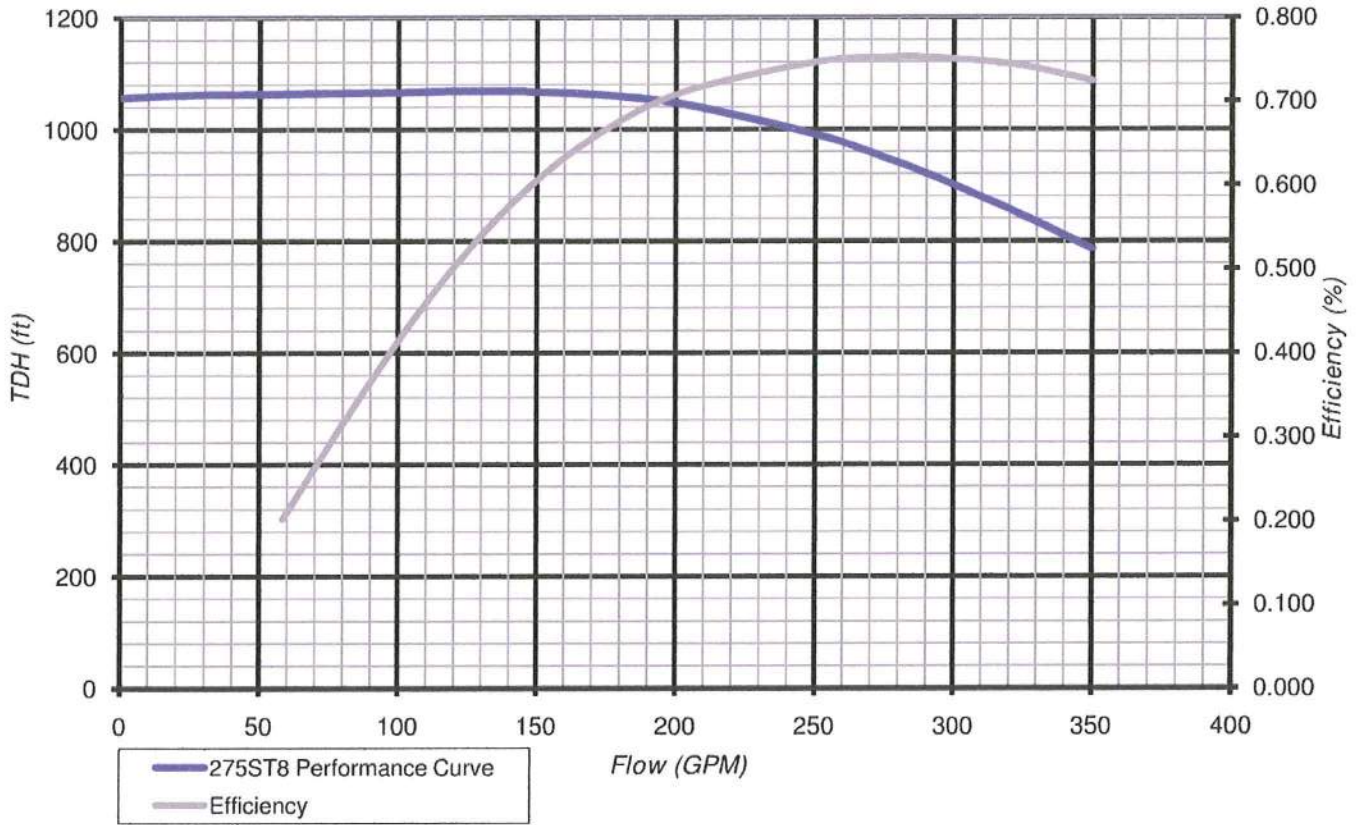


**Franklin Electric**  
 Bluffton, Indiana 46714 • www.franklin-electric.com

M/N- 275ST8-9 stage, 100 HP motor

**Design point - 260 gpm @ 970' TDH, 84.6 BHP , 75% efficiency @ design point**

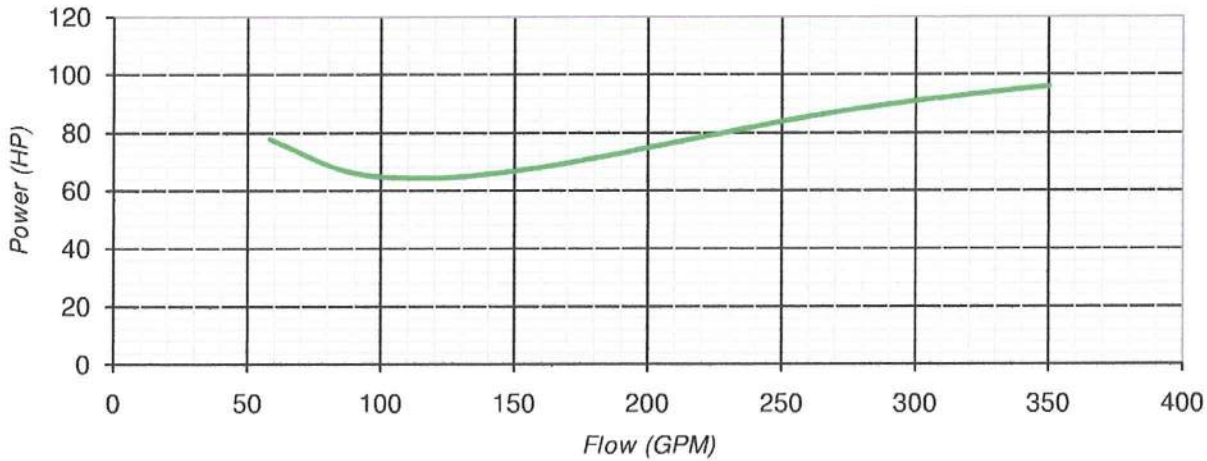
*275 GPM 8" Pump Performance*



- 2 A trim impellers
- 7 B trim impellers
- 0 C trim impellers

Max Power on Curve: 95.9 HP

*Power Required*



## Material specification for MMS 6000 to MMS 10000

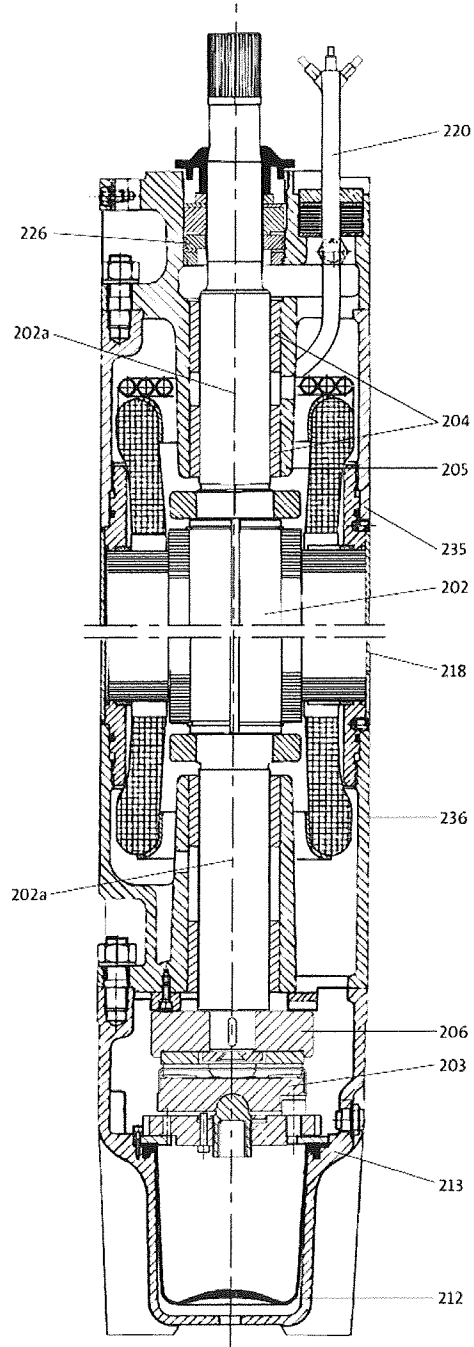
Example: MMS 10000

### Cast iron version

Pos.	Component	Material	DIN/EN
202	Shaft	Steel	1.4462
202a	Shaft ends	Stainless steel	
203/ 206	Thrust bearing Stationary/ro- tating part	6" 50HP 6" 50HP 8"-10"	Hardened steel/ EPDM Ceramic/carbon
204	Bearing ring	6"-10"	Carbon Stainless steel/NBR
205	Bearing housing, upper	Cast iron	EN- JL1040
212	Diaphragm	CR	
213	Motor end shield	Cast iron	EN- JL1040
218	Motor sleeve	Stainless steel	1.4401
220	Motor cable	EPDM	
226	Shaft seal	Ceramic/carbon	
235	Intermediate housing	Cast iron	EN- JL1040
236	Bearing housing, lower	Cast iron	EN- JL1040

### N-version

Pos.	Component	Material	DIN/EN
202	Shaft	Steel	1.4462
202a	Shaft ends	Stainless steel	
203/ 206	Thrust bearing Stationary/rota- ting part	6" 50HP 6" 50HP 8"-10"	Hardened steel/ EPDM Ceramic/carbon
204	Bearing ring	6"-10"	Carbon Stainless steel/ NBR
205	Bearing housing, upper	Stainless steel	1.4401
212	Diaphragm	CR	
213	Motor end shield	Stainless steel	1.4401
218	Motor sleeve	Stainless steel	1.4401
220	Motor cable	EPDM	
226	Shaft seal	Ceramic/carbon	
235	Intermediate housing	Stainless steel	1.4401
236	Bearing housing, lower	Stainless steel	1.4401



TMB: 4985 0414



# City of Krum

## Northpoint Water Well-36 Hour Pump Test

6/30/10 – 7/2/10

Date	Time	PSI	GPM	Water Level	Drawdown
6/30	8:15	125	0	611'	0
6/30	8:20	110	125	646	35
6/30	8:30	98	125	673	62
6/30	9:00	98	150	673	62
6/30	9:30	98	175	673	62
6/30	10:00	98	200	673	62
6/30	10:30	98	200	673	62
6/30	11:00	98	200	673	62
6/30	11:30	98	200	673	62
6/30	12:00	96	225	678	67
6/30	12:30	96	225	678	67
6/30	1:00	96	225	678	67
6/30	1:30	95	225	681	70
6/30	2:00	95	225	681	70
6/30	2:30	95	225	681	70
6/30	3:30	95	225	681	70
6/30	4:00	95	225	681	70
6/30	4:30	94	240	683	72
6/30	5:00	93	240	686	75
6/30	5:30	93	240	686	75
6/30	6:00	93	240	686	75
6/30	6:30	92	240	698	77
6/30	7:00	90	260	693	82
6/30	7:30	90	260	693	82
6/30	8:00	89	260	695	84
6/30	8:30	88	260	697	86
6/30	9:00	88	260	697	86
6/30	9:30	87	260	700	89
6/30	10:00	86	260	703	92
6/30	10:30	86	260	703	92
6/30	11:00	86	260	703	92
6/30	11:30	85	260	705	94
7/01	12:00	84	260	707	96
7/01	12:30	83	260	710	99
7/01	1:00	83	260	710	99
7/01	1:30	82	260	712	101
7/01	2:00	81	260	715	104



**City of Krum**  
**Northpoint Water Well-36 Hour Pump Test**

6/30/10 – 7/2/2010

Date	Time	PSI	GPM	Water Level	Drawdown
7/01	2:30	81	260	715	104
7/01	3:30	81	260	715	104
7/01	4:00	81	260	715	104
7/01	4:30	81	260	715	104
7/01	5:00	81	260	715	104
7/01	5:30	81	260	715	104
7/01	6:00	81	260	715	104
7/01	6:30	81	260	715	104
7/01	7:00	81	260	715	104
7/01	7:30	81	260	715	104
7/01	8:00	81	260	715	104
7/01	8:30	81	260	715	104
7/02	1:30	80	260	718	107
7/02	6:30	80	260	718	107
7/02	8:30	80	260	718	107
Pump Off					
7/02	8:35	110	0	645	
7/02	8:40	120	0	622	
7/02	8:50	125	0	611	
7/02	9:30	125	0	611	

Pump setting 900'

Flowmeter – 4" Analog

Specific Capacity =  $260/107 = 2.4$  GPM per foot of draw down

250/260 GPM @ 718' drawdown  
 + 92' column, c.v., plumbing losses  
 + 140' tower height  
 950' TDH  
 80 hp load @ 78% efficiency -100 hp motor

# POPE TESTING LABORATORIES, Inc.,

## CONSULTING ANALYTICAL CHEMISTS

*Food, Nutritional, Water and Agricultural Analysis*

2220 Hinton Drive  
Irving, Texas 75061  
sakhartman@sbcglobal.net

Phone: 972-871-2892  
972-871-7188  
Fax: 972-871-7452

August 12, 2010

Strittmatter Irrigation & Supply, Inc.  
800 N. Hwy 377  
Pilot Point, TX 76258-9276

Attn: Alam Strittmatter

Report of Tests on: Water

Identification: City of Krum, Northpointe Well

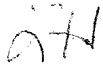
Values reported are for minerals in solution

	<u>mg/L</u>
Calcium .....	11.2
Magnesium .....	5.0
Iron .....	0.03
Manganese .....	0.01
Sodium .....	252.9
Carbonate .....	0.0
Bicarbonate .....	226.9
Sulphate .....	23.3
Chloride .....	275.2
Fluoride .....	0.3
Nitrate .....	0.0
Phenolphthalein Alkalinity as CaCO <sub>3</sub> .....	0.0
Total Alkalinity as CaCO <sub>3</sub> .....	186.0
Total Hardness as CaCO <sub>3</sub> .....	48.5
Total Dissolved Solids .....	794.8
Arsenic .....	< 0.005
Barium .....	0.037
Beryllium .....	< 0.004
Chromium .....	< 0.005
Nickel .....	< 0.005
Selenium .....	< 0.04
Aluminum .....	0.024

Page - 2-  
City of Krum , Northpointe Well

	<u>mg/L</u>
Copper .....	< 0.005
Silver .....	< 0.005
Zinc .....	0.008
Nitrite (N) .....	< 0.005
Specific Conductance Micromhos/cm .....	1300
pH .....	7.8

Respectfully submitted,



LEON HUNTER

Lab No. 83720





NELAC Certificate #:  
TX104704381-09-TX

Test results meet all requirements of NELAC unless stated otherwise.

**TCEQ**

**MICROBIAL MONITORING FORM**

Public/Private Water System Identification & Sample Collection Information (Please type or use block print)

Public Water System Name:  
City of Krum

County:  
Denton

Name:  
Strittmatter Irrigation

Address:  
800 N. Hwy 377

City:  
Pilot Point

State:  
TX

TCEQ Lab ID:  
48130

Received By:  
FG

Date / Time Received:  
JAN 13 11 9:03

Tested By:  
MD

Date / Time Tested:  
1/13/11 1530

Reported By:  
RMM

Date / Time Reported:  
1/14/11 9:30

Report Approval Signature/Title:  
*Amber Miller*

Approving Technical Director:  
*[Signature]*

Date of Approval:  
1-21-11

Sample Iced?  Yes  No

If no temperature at receipt?  Yes  No

°C

Unsuitable Sample

Please Resubmit Test Method

Phone #: 940-686-5138

Zip: 76258

Fax #: 940-686-2604

Sampler Name: Denis Hartman

Sampler Contact #: 940-686-5138

System Type:  Public  Private  Bottled/Vended  Groundwater  Surface Water

Water Source:  Groundwater  Surface Water

Sample Identification/Location

Use Specific Address/Location

NOT SITE #

Raw Wells Use Source ID for Well Sampled Ex: G1234567A

City of Krum

North Point Waterwell

152 North Point Drive

Krum

Month: 1

Day: 13

Year: 11

Time: 8:30 am

Repeat:

Special:

Distribution:

Construction:

Raw Well:

Included Lab ID of Originating Positive on all Repeat Samples:

Free mg/L

Total mg/L

Rejection Criteria #

Total Coliform

E. coli

Present

Absent

Present

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0012-04-2009

**CITY OF KRUM  
ORDINANCE 2009-XX  
SANITARY CONTROL FOR WATER WELLS**

(a) Purpose and Applicability.

1. The purposes of this ordinance are:
  - (A) To protect the potable water supply of public and private water wells from contamination and pollution from flooding or unsanitary surroundings.
  - (B) To restrict activities and facilities that pose a danger of contamination or pollution of potable water supply of public and private water wells.
  - (C) To provide for enforcement of such restrictions on activities and facilities.
2. This ordinance shall apply to all activities and facilities within the Corporate Limits of the City of Krum and within the area under the extraterritorial jurisdiction of the City of Krum.

(b) Definitions. For the purposes of this ordinance, the following definitions shall apply except when the context clearly indicates otherwise:

1. Water Well. Means any publicly or privately owned or proposed water well that has as one of its purposes to supply potable water, that either exists or is proposed with a site plan approved by the City of Krum.
2. Pollution, Contamination. Means the presence of any foreign substance in water that tends to degrade its quality, create a health hazard, or impair the usefulness of the water.
3. Potable Water. Means water which is free from impurities that may cause disease or harmful physiological effects, such that the water is safe for human consumption.

(c) Requirements.

1. No temporary or permanent activities or facilities that pose a danger of pollution or contamination of any water well shall be allowed.
2. No temporary or permanent activities or facilities that will flood a water well site shall be allowed.
3. None of the following shall be located within 50 feet of a water well:
  - (A) Storm sewers
  - (B) Livestock in pastures
  - (C) Cemeteries

- (D) Gravity sanitary sewer lines
- (E) Sanitary sewer force mains
- (F) Sewerage appurtenances
- (G) Septic Tanks

4. None of the following shall be located within 150 feet of a water well:

- (A) Septic tank perforated drainfields
- (B) Areas irrigated by low dosage, low angle spray on-site sewage facilities
- (C) Absorption beds
- (D) Evapotranspiration beds
- (E) Water wells not constructed in accordance with Texas Commission on Environmental Quality requirements for potable water wells
- (F) Underground petroleum storage tanks
- (G) Underground chemical storage tanks
- (H) Liquid petroleum transmission pipelines
- (I) Liquid chemical transmission pipelines

5. None of the following shall be located within 300 feet of a water well:

- (A) Sewage wet wells
- (B) Sewage pumping stations
- (C) Drainage ditches containing industrial waste discharges
- (D) Drainage ditches containing wastes from sewage treatment systems

6. None of the following shall be located within 500 feet of a water well:

- (A) Sewage treatment plants
- (B) Animal feed lots
- (C) Solid waste disposal sites
- (D) Land on which sewage plant sludge is applied
- (E) Land on which septic tank sludge is applied
- (F) Land irrigated by sewage plant effluent

(d) Enforcement.

- I. The City of Krum's code enforcement officer has the authority to enforce the requirements of this ordinance by inspecting activities and facilities for compliance with this ordinance, requiring adjustment to or elimination of activities or facilities not in compliance with this ordinance, and issuing citations for activities or facilities not in compliance with this ordinance.

## **Enforcement**

1. The Code Enforcement Officer of the City of Krum or a Peace Officer of the City of Krum, to administer the provisions of this section may enter upon private property for the purpose specified in this section. To inspect activities and facilities for compliance with this ordinance, requiring adjustment to or elimination of activities or facilities not in compliance with this ordinance, and issuing citations and / or court summons for activities or facilities not in compliance with this ordinance.
2. The notice of noncompliance with this article shall be in writing and may be served upon the person in noncompliance as follows:
  - a) By personal delivery to the owner in writing; or
  - b) By letter addressed to the owner at the owner's post office address
  - c) By posting notice on or near the front door of each building on the property to which the violation relates; or
  - d) By posting notice on a placard attached to a stake driven into the ground on the property to which the violation relates if the property contains no building; or
  - e) Any other notice provided by Chapter 342 of the Texas Health and Safety Code, Section 342.006, as it now exists or is hereafter amended.

## **Penalties For Violation**

1. Any person, firm or corporation found in violation of any of the provisions of this article shall be deemed guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine as provided for in the general penalty provision found in Section 1.106 of this code for each day and every day that the violation occurs. When any person, firm or corporation refuses to comply with the above-stated provisions or in emergency circumstances, then pursuant to Section 217.002 of the Texas Local Government Code, the City of Krum or other court of competent jurisdiction may order the immediate abatement or remedy of the offense.



**CITY OF KRUM  
MASCH BRANCH ROAD WATER WELL**

**ADDENDUM NO. 2  
JUNE 18<sup>th</sup>, 2020**

BID DATE: Tuesday, June 23<sup>rd</sup>, 2020, 2:00 p.m.

***The following additions, deletions, modifications, or clarifications shall be made to the appropriate sections of the plans and specifications and shall become a part of the Contract Documents. Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid form.***

**QUESTIONS:**

**NOTE: All questions from CIVCAST have been answered and all questions and answers are included in this addendum.**

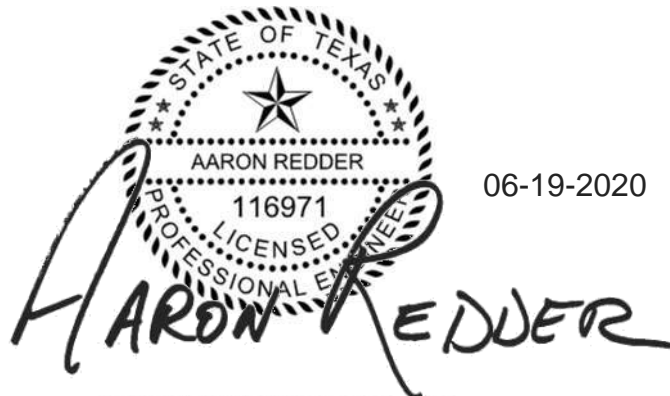
1. The drawings have the column pipe labeled as 4" stainless steel. The documents shows schedule 40 black steel. Which is correct?
  - a. The 4" column pipe needs to be stainless steel to meet TCEQ requirements.
2. Is there an air line and/or drawdown tube to be installed that is not listed in the plans? If so, what material is to be used?
  - a. 1" measuring tube per NTGCD (North Texas Ground Conservation District) requirements. The material will be PVC. It will be addressed in the following addenda.
3. What is the slot size of the of the rod-based SS screen? What is the mesh size of the gravel filter pack?
  - a. The slot size and mesh size should be based on the geophysical logs and well performance testing.
4. Are there any precise, specific bid lines for the scope of work for each phase of well construction/project?
  - a. No specific bid items for each phase of well construction. Bid Item A-02 will be updated to lump sum.
5. Will Pro Oil & Gas be responsible for providing geophysical logging and sieve analysis after completion of the 8" pilot hole? If so, what logs will be required (Specs to bid did not state that logging is required, it may be required, including cement bond log)? Who is responsible for calling final TD and screen setting?
  - a. Contractor will be required to submit reports required per NTGCD (North Texas ground Conservation District). List of required logs will be added to the specs.
  - b. Contractor to work with Engineer and Owner to verify formation.
6. Can cuttings be disposed on-site or must be hauled away off-site?
  - a. Cuttings will need to be hauled off site.
7. Can produced water from well development and pump test be discharged on-site, or will the water have to be contained and hauled off-site?
  - a. Per Spec 33 21 00 Section 3.04.E.2, the disposal of the water will not create a nuisance or endanger adjacent property and comply with requirements of authorities having jurisdiction.
8. What device will be used in completed well to measure pumping level/static level/drawdown?
  - a. The air line will be used to measure pumping level/static level/drawdown.
9. What are any other water well specific design points and/or bid items that can be articulated that are not evident in the Specs or Drawings?
  - a. Please refer to the addendum for any changes in specs or drawings.

10. Would you post the pre-bid meeting sign in sheet?
  - a. Uploaded under documents.
11. We see that there are a number of bond requirements for this bid. Can you confirm that these are all required?
  - a. A bid bond of 5% is required. If awarded the project, a performance, payment, and maintenance bond of 100% will be required.
12. What type of pits are allowed, earthen or portable?
  - a. Either are allowed. They will need to be located at the proposed pit
13. Is there an onsite water source?
  - a. There is a fire hydrant located west of the project site off of Masch Branch Road.
14. Where can the water from the pump test be discharged to?
  - a. Per Spec 33 21 00 Section 3.04.E.2, the disposal of the water will not create a nuisance or endanger adjacent property and comply with requirements of authorities having jurisdiction
15. Will there be any addendum on how to address cuttings and drill fluids?
  - a. Cuttings will need to be hauled off site.
  - b. Per Spec 33 21 00 Section 3.04.E.2, the disposal of the water will not create a nuisance or endanger adjacent property and comply with requirements of authorities having jurisdiction
16. In the specs, it is stated that a CD is required with a copy of the bid packet, can we submit this via USB instead?
  - a. A new USB will be an acceptable format to submit a digital copy of the bid.
17. What material is the air line made of?
  - a. 1" PVC
18. Can JCS Industries be considered an approved equal for the chlorination equipment, as well as an approved equal for LAS pump skid integrator?
  - a. We do not have enough information or time to approve an equal prior to bids. See spec 01 26 00 Change Management included in this addendum.

**CONTRACT DOCUMENTS:**

**SPECIFICATIONS:**

- A2-1                    Table of Contents
- A. Remove ~~00 73 16 Insurance Requirements~~
    - i. Insurance requirements are referenced in Supplementary Conditions.
  - B. Add 01 26 00 Change Management
- A2-2                    Add 01 26 00 Change Management Specification
- A. See attached.



FREESE AND NICHOLS, INC.  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-2144

END OF ADDENDUM NO. 2

A2-2

## **01 26 00 CHANGE MANAGEMENT**

### **PART 1 - GENERAL**

#### **1.01 REQUESTS FOR CHANGE PROPOSAL**

- A. Construction Manager will initiate Modifications by issuing a Request for Change Proposal (RCP).
  - 1. Construction Manager and Design Professional will prepare a description of proposed Modifications.
  - 2. Construction Manager will issue the Request for Change Proposal form to Contractor. A number will be assigned to the Request for a Change Proposal when issued.
  - 3. Return a Change Proposal in accordance with Paragraph 1.02 for evaluation by the Owner's Project Team (OPT).

#### **1.02 CHANGE PROPOSALS**

- A. Submit a Change Proposal (CP) to the Construction Manager for Contractor initiated changes in the Contract Documents or in response to a Request for Change Proposal. Submit the Change Proposal and attach the forms provided by the Construction Manager.
  - 1. Use the Change Proposal form provided by the Construction Manager.
  - 2. Include with the Change Proposal:
    - a. A complete description of the proposed Modification if Contractor initiated or proposed changes to the OPT's description of the proposed Modification.
    - b. The reason the Modification is requested, if not in response to a Request for a Change Proposal.
    - c. A detailed breakdown of the cost of the change if the Modification requires a change in Contract Price. The itemized breakdown is to include:
      - 1) List of materials and equipment to be installed;
      - 2) Man hours for labor by classification;
      - 3) Equipment used in construction;
      - 4) Consumable supplies, fuels, and materials;
      - 5) Royalties and patent fees;
      - 6) Bonds and insurance;
      - 7) Overhead and profit;
      - 8) Field office costs;
      - 9) Home office cost; and
      - 10) Other items of cost.
    - d. Provide the level of detail outlined in the paragraph above for each Subcontractor or Supplier actually performing the Work if Work is to be provided by a

Subcontractor or Supplier. Indicate appropriate Contractor mark ups for Work provided through Subcontractors and Suppliers. Provide the level of detail outlined in the paragraph above for self-performed Work.

- e. Submit Change Proposals that comply with the General Conditions for Cost of Work.
  - f. Provide a revised schedule. Show the effect of the change on the Project Schedule and the Contract Times.
- B. Submit a Change Proposal to the Construction Manager to request a Field Order.
  - C. A Change Proposal is required for all substitutions or deviations from the Contract Documents.
  - D. Request changes to products in accordance with Section 01 33 02 "Shop Drawings."

#### 1.03 CONSTRUCTION MANAGER WILL EVALUATE THE REQUEST FOR A MODIFICATION

- A. Construction Manager will issue a Modification per the General Conditions if the Change Proposal is acceptable to the Owner. Construction Manager will issue a Change Order or Contract Amendment for any changes in Contract Price or Contract Times.
  - 1. Change Orders and Contract Amendments will be sent to the Contractor for execution with a copy to the Owner recommending approval. A Work Change Directive may be issued if Work needs to progress before the Change Order or Contract Amendment can be authorized by the Owner.
  - 2. Work Change Directives, Change Orders, and Contract Amendments can only be approved by the Owner.
    - a. Work performed on the Change Proposal prior to receiving a Work Change Directive or approval of the Change Order or Contract Amendment is performed at the Contractor's risk.
    - b. No payment will be made for Work on Change Orders or Contract Amendments until approved by the Owner.
- B. Contractor may be informed that the Change Proposal is not approved and construction is to proceed in accordance with the Contract Documents.

#### 1.04 EQUAL NON-SPECIFIED PRODUCTS

- A. The products of the listed manufacturers are to be furnished where the Specifications list several manufacturers and do not specifically list "or equal" or "or approved equal" products. Use of any products other than those specifically listed is a substitution. Follow the procedures in Paragraph 1.05 for a substitution.
- B. Contractor may submit other manufacturers' products that are in full compliance with the Specifications where Specifications list one or more manufacturers followed by the phrase "or equal" or "or approved equal."
  - 1. Submit a Shop Drawing as required by Section 01 33 02 "Shop Drawings" to document that the proposed product is equal or superior to the specified product.

2. Prove that the product is equal. It is not the OPT's responsibility to prove the product is not equal.
    - a. Indicate on a point-by-point basis for each specified feature that the product is equal to the Contract Document requirements.
    - b. Make a direct comparison with the specified manufacturer's published data sheets and available information. Provide this printed material with the Shop Drawing.
    - c. The decision of the Design Professional regarding the acceptability of the proposed product is final.
  3. Provide a certification that, in furnishing the proposed product as an equal, the Contractor:
    - a. Has thoroughly examined the proposed product and has determined that it is equal or superior in all respects to the product specified.
    - b. Has determined that the product will perform in the same manner and result in the same process as the specified product.
    - c. Will provide the same warranties and/or bonds as for the product specified.
    - d. Will assume all responsibility to coordinate any modifications that may be necessary to incorporate the product into the construction and will waive all claims for additional Work which may be necessary to incorporate the product into the Project which may subsequently become apparent.
    - e. Will maintain the same time schedule as for the specified product.
- C. A Change Proposal is not required for any product that is in full compliance with the Contract Documents. If the product is not in full compliance, it may be offered as a Substitution.

#### 1.05 SUBSTITUTIONS

- A. Substitutions are defined as any product that the Contractor proposes to provide for the Project in lieu of the specified product. Submit a Change Proposal per Paragraph 1.02 along with documents required for a Shop Drawing as required by Section 01 33 02 "Shop Drawings" to request approval of a substitution.
- B. Prove that the product is acceptable as a substitute. It is not the Design Professional's responsibility to prove the product is not acceptable as a substitute.
  1. Indicate on a point-by-point basis for each specified feature that the product is acceptable to meet the intent of the Contract Documents requirements.
  2. Make a direct comparison with the specified Suppliers published data sheets and available information. Provide this printed material with the Shop Drawing.
  3. The decision of the Design Professional regarding the acceptability of the proposed substitute product is final.

- C. Provide a certification that, in making the substitution request, the Contractor:
  - 1. Has determined that the substituted product will perform in substantially the same manner and result in the same ability to meet the specified performance as the specified product;
  - 2. Will provide the same warranties and/or bonds for the substituted product as specified or as would be provided by the manufacturer of the specified product;
  - 3. Will assume all responsibility to coordinate any modifications that may be necessary to incorporate the substituted product into the Project and will waive all claims for additional Work which may be necessary to incorporate the substituted product into the Project which may subsequently become apparent; and
  - 4. Will maintain the same time schedule as for the specified product.
- D. Pay for review of substitutions in accordance with Section 01 33 02 "Shop Drawings."

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**