League City South Shore Harbour Booster Pump Station Improvements

CDM Smith
Contractor Change Request

CONTRACTOR CHANGE REQUEST SUMMARY
CITY OF LEAGUE CITY, TX
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT

PREPARED BY: Sagastizado
DATE: July 26, 2016
CCI PROJECT NO: 104062

Contractor Change Request No. 1

CCR#	DESCRIPTION	Critical Path Schedule Extension (calendar days)	CDM Smith Engineering Services	General Conditions (Prorated $97,283/mo)	Direct Field Labor	MATERIAL	EQUIPMENT	SUBCONTRACT	TOTAL	COMMENTS
CCR 001	Cathodic Protection	0	$ -		$ 28,460	$ -	$ -	$ 33,450	$ 61,910	See Pgs 3-19 Backup Documents: 1. April 11 Meeting Minutes 2. Global Cathodic Conttract
CCR 002	Well Water Yield Issues	0	$ -		$ -	$ -	$ -	$ 61,670	$ 61,670	See Pgs 20-64 Backup Documents: 1. January 11th letter from Mike Clarke 2. Submittal from Weisinger on Water Quality
CCR 003	Generator Re-location	0	$ -		$ 2,543	$ 5,645	$ 6,115	$ -	$ 14,303	See Pgs 65-69 Backup Documents: 1. TNT Crane Quote
CCR 004	Interior Tank Coating	0	$ -		$ 1,536	$ -	$ -	$ 13,133	$ 14,669	See Pgs 70-73 Backup Documents: 1. DN Tank Change Order 4
CCR 005	TNMP Easement Survey	83	$ 4,500	$ -	$ -	$ -	$ -	$ -	$ 4,500	See Pgs 74-81 Backup Documents: TNMP: 1. CDM Smith invoice for TNMP Easement services 2. Briones Invoice 3. Email from Jennifer Paradis May 6, 2015 4. Email from Bobby Morrison May 6, 2015 5. Email from Jeff Peters May 6, 2015 6. Email from Bobby Morrison April 23, 2015

CCR 006	Weather Delays (Up to11/05/15)	0	$ -		$ -	$ -	$ -	$ -	$ -	See Pgs 81-84 Backup Documents: 1. Not applicable
CCR 007	External Disconnect Switch	0	$ -		$ 788	$ -	$ -	$ 55,402	$ 56,190	See Pgs 85-96 Backup Documents: 1. Design review comments 2. External Disconnect Breakdown
CCR 008	Relocating Poly Injection at Well Piping	0	$ -		$ 3,524	$ 1,822	$ 1,410	$ -	$ 6,756	See Pgs 97-105 Backup Documents: 1.Pricing for Escavator from United Rentals 2. Pricing for saddle from HD Supply
CCR 009	Added piping at Flow Meter Vault	2	$ -		$ 5,284	$ 3,810	$ 1,410	$ -	$ 10,504	See Pgs 106-109 Backup Documents: 1.Pricing for Excavator from United Rentals
CCR 010	Extended Engineering Services for South Shore Harbour	0	$ 25,725		$ -	$ -	$ -	$ -	$ 25,725	See Pgs 110-113 Backup Documents: 1. CDM Smith Pricing Break Down
CCR 011	DFS Alarm Screen	0						$ 1,220	$ 1,220	See Pgs 114-120
CCR 012	Water Well Blending Study & Development for TCEQ Approval	0	$ 68,380	$ -	$ -	$ -	$ -	$ -	$ 68,380	See Pgs 121-129 Backup Documents: 1. CDM Smith Inc. proposal
SUBTOTAL COST		85	$ 98,605	$ -	$ 42,135	$ 11,277	$ 8,935	$ 164,875	$ 325,827	

SUBTOTAL		$325,827
LIABILITY INSURANCE	0.12%	$391
BUILDERS RISK INSURANCE	0.29%	$945
PAYMENT & PERF. BONDS	1.00%	$3,258
SUBTOTAL		$330,421
Overhead+Profit (OH&P)	6.0%	$19,825
SUBTOTAL		$350,246
SALES TAX	0.000%	$0
TOTAL PRICE		$350,246

CCR #001

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**001**	**Date:**	**12/23/2015**
CHANGE DESCRIPTION	Cathodic Protection of underground piping was not included in Wasteline drawings or CCI's original GMAX pricing. The addition of the cathodic protection was discussed on project kick-off and Owner contingency was used to cover the cost of Global Cathodic Protection. Global Cathodic Protection does not do their own installation of the jumpers from each pipe joint and fitting; thus, CCI installed the required cathodic jumpers. This is a tedious process of removing the plastic covering, welding the caps onto each end of pipe, and connecting the jumpers, then replacing the plastic covering. This was done throughout all of the yard piping installation.		
AMOUNT ($):	$61,910	**ROM TIME IMPACT (DAYS):**	**0**

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CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY: Paradis/Nicholson**

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 12/23/2015

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
	Cathodic Protection - Laborer	480	MH	480.0	$ 55.00	$ 26,400	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,400
	Global Cathodic Protection Contract	1	LS								$ 33,450.00	$ 33,450	$ 33,450
CCI General Conditions													$ -
	Project Manager	1	MH	1.0	$ 101.57	$ 102	$ -	$ -	$ -	$ -	$ -	$ -	$ 102
	Construction Specialist (PE)	4	MH	4.0	$ 42.06	$ 168	$ -	$ -	$ -	$ -	$ -	$ -	$ 168
	Superintendent	24	MH	24.0	$ 74.59	$ 1,790	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,790
			MH	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
			MH	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
				480.0		**$ 28,460**		**$ -**		**$ -**		**$ 33,450**	**$ 61,910**

TBPE Firm Registration No. F-3043

Memorandum

To: *Distribution*

From: *Brent W. Nicholas, P.E.*

Date: *April 11, 2014*

Subject: *City of League City, Texas*
South Shore Harbour Booster Pump Station
Improvements Project
INTERNAL PROGRESS MEETING
CDM Smith P/N 2070-XXXXX

An internal progress meeting was held with the project team on **Friday April 11, 2014 via conference call** for the above referenced project. See attached for the attendance sheet. The meeting addressed the re-start of design phase activities, schedule for the CCI bid packages, site visit scheduling, current design progress, and remaining outstanding coordination items. The following content presents a summary of the items discussed at the meeting.

1. DESIGN PM OPENING

a. Brent Nicholas has emailed a notice of reactivation to the TEAM on Friday April 4, 2014 at 4:04 PM. Within this document were outlined the deliverable schedule and proposed conference call meeting dates. Conference call dates are as follows:

   i. April 11, 18, 24, and May 2, 9, 16, and 23. All are at 2:00 pm.

2. DESIGN SCHEDULE

a. Brent Nicholas forwarded a CCI email regarding a change in the project deliverables.
b. **Package No. 1:** GST and Pump Station Slab including underslab piping and plumbing (4 weeks following NTP / ICA)

   i. We would need some electrical design and layout as well for the underslab / embedded conduit for the pumps. For the VFD's and MCC I was thinking of an electrical trench running the full length under each with the gear spanning it so we don't have to stub up conduit at the exact location of each and could just run the cable in the trench. Perhaps block-out for the run of conduits from the buried ductbank through the slab into the

electrical room trench. Just a thought on one way to expedite this slab design and construction.

ii. Yard piping as described above.

iii. See attached Specification Table of Contents and Drawing Log with the items I believe would be needed for this first design package as described highlighted in green.

c. **Package No. 2:** Balance of Plant (8 weeks following NTP) Architectural

3. SITE VISIT SCHEDULING

a. Electrical – Tentatively scheduled for Thursday, April 17th.

b. Civil – TBD, Brian Crowell with coordinate date of site visit with Brent Nicholas.

4. ELECTRICAL

a. ELECTRICAL LOAD LIST:

i. Emailed March 7, 2014 at 5:55 PM. Resent to electrical and I&C on April 4, 2014 at 5:44 PM.

ii. I&C Responded with revised list on April 7, 2014.

iii. Need sub-disciplines to review (HPF!).

b. GENERATOR SET RE-USE.

i. Need to reconfirm existing gen-set will power all designated loads.

ii. In reusing the existing generator set and fuel tank need to identify if we need to add spill containment due to single wall tank.

c. CATHODIC PROTECTION

i. Client desires to add in cathodic protection. This is a scope add.

5. P&IDs and CONTROL NARRATIVE GENERATION

a. P&ID markups were delivered to I&C this week on April 8th and 10th.

b. Control Narratives; I&C to use SH3-BPS as a go-by.

6. ARCHITECTURAL

a. Building Classification should be the first priority for Architectural moving forward.

b. Architectural will need to coordinate with Process Mechanical and Structural on the height of the building necessary to accommodate the monorail.

c. The location of one of the wall-mounted louver/fan assemblies is currently shown above the bathroom, which is not ideal. Architectural will work to see if the fan can be relocated or whether the ceiling of the bathroom ceiling can be lowered in order to set the fan above the bathroom.

d. Need to determine locations for emergency and access doors.

7. STRUCTURAL

a. Will need design GST outfall structure – Structural to coordinate with Process Mechanical on this.

b. Will need new slab for GenSet – Structural to coordinate with Electrical and Site Civil on this.

8. SITE CIVIL

a. The question was raised of what sort of spill containment will be needed for moving the tank. The system will likely consist of a containment curb with paving.

b. Site Civil will develop the stormwater outlet/fuel spill collection structure/containment once identified.

c. Civil to develop a Traffic Control Plan and SWPPP Drawings.

9. HVAC/PLUMBING/FIRE PROTECTION

a. Electrical has requested that HVAC consider using natural gas for heating the Booster Pump Building wherever possible in order to reduce the electrical load required by heaters. PM indicated this is possible based on previous N.G. line capacity research; but HPF recommended against.

10. SPECIFICATIONS

a. Formatted example specifications are currently uploaded to the eRoom. Sub-disciplines need to update their respective specs in the next two weeks and coordinate document production with either Kathyann Popplewell (Houston), or Karen Williams (Dallas) for AES subdisciplines.

11. MISCELLANEOUS

a. The subdisciplines need to send updated budgets for design and construction phases to Brent Nicholas by Monday.

b. Subdisciplines also need to define scope additions in order to keep a handle on 'scope creep' for CCI.

c. An eRoom link will be sent to the team with the location of the Wasteline drawing set for reference.

Action Items

1. **Each subdiscipline needs to email Brent W. Nicholas detailing budget requirements for design and construction as well as additional scope items not included in preparation of GMAX estimate.**

2. **Subdisciplines to update and finalize respective specification sections, which are posted on the eRoom.**

3. **Subdisciplines to review electrical load list.**

4. **I&C will address Brent Nicholas' mark-ups on the P&ID set over the next week.**

5. **Team to continue working on deliverable packages 1 and 2. Package 1 is due 4 weeks from NTP.**

Attachments:
A. Sign-in/Attendee sheet

cc: Meeting Attendees
CDM Smith Project Team, Project File

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SA#: 104062.016 SUBCONTRACTOR AGREEMENT

Subcontractor Information

Subcontractor Representative: Global Cathodic Protection, Inc.
Address: PO Box 5189
City: Houston
State: TX ZIP Code: 77262
Telephone #: 713-784-9588
Mailing Address:
State: ZIP Code:

Project Site Information

CDM Constructors Inc.
Project Manager (PM): Mike Clarke
PM Address: 3050 Post Oak Blvd. Suite 300
City: Houston
State: TX ZIP Code: 77056
PM Telephone #:
Work Site : League City SSH BPS
Project Number: 104062 Task Order #: 16640

Scope of Work (the Services)

Furnish all labor, materials, equipment, services and incidentals required to install cathodic protection system on piping. Installation of the deepwell, rectifier, junction box, concrete pad, bollards, etc., as specified, and shown on the Plans.

For detailed scope of work, see attached SOW and quote dated November 4, 2014.

Submittal Lead Time: Immediate

Contract Price and Payment Terms

$33,450.00 / NET42, 5% Retention (With respect to retention, this line will supersede Item 4 under the T&C's)

Work Schedule

Subcontractor shall submit a schedule within 2 weeks from NTP with milestones.

Special Conditions

- Insurance Certificate with attached additional insured and waiver of subrogation endorsements (Yes ☒) (No ☐)
- Prime contract applies (Yes ☒) (No ☐)
- Subcontractor Bond Required (Yes ☐) (No ☒)
- Warranty Period One (1) year after CDM Constructors Inc. receives substantial completion from owner
- Other N/A

This Subcontractor Agreement and Terms & Conditions attached establish the terms and conditions under which the Subcontractor agrees to provide and CDM Constructors Inc. agrees to pay for, Services. In consideration of the mutual covenants contained herein and for other good consideration, the receipt and sufficiency of which is hereby acknowledged, the parties have caused this Agreement to be executed by their duly authorized representative as of the date first written below.

SUBCONTRACTOR AUTHORIZED REPRESENTATIVE OR AGENT

Signature

KENDALL BAKER DAVIS 11/10/14
Print Name Date

Employee ID #

CDM CONSTRUCTORS INC.

Signature

Mike Clarke 11/11/14
Print Name Date

Important – Standard Terms and Conditions attached

Invoice Mail to: CCIWEST-

CDM Smith

PAYABLES@CDMSMITH.COM

Address: _____

_____

City/State/Zip: _____

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TERMS AND CONDITIONS

1. This Subcontractor Agreement ("Agreement") constitutes the entire agreement between the parties. Additional, conflicting or different terms on any Order Confirmation or Quote Form or other document issued by Subcontractor shall be void and are hereby expressly rejected by CDM Constructors Inc. Any modifications to this Agreement must be in writing and signed by both parties. Subcontractor shall perform services or deliver materials (hereinafter "Services") as specified in this Agreement. Time is of the essence in the performance of this Agreement.

2. This Agreement is to be construed under the laws of the Commonwealth of Massachusetts, and the parties agree to submit to the jurisdiction of the courts of Massachusetts for any disputes arising under this Agreement, unless the Prime Contract specifies elsewhere. Subcontractor represents and warrants that it is properly licensed and has the requisite skills and experience to provide the Services described or reasonably implied in the Scope of Work. Subcontractor shall provide the requested Services as an independent contractor and shall perform all work in a thorough, professional and workmanlike manner in all respects exercising the same degree of care and skill ordinarily exercised by reputable members of Subcontractor's profession or trade practicing in the locality of the Services. Subcontractor shall not, under any circumstances, subcontract or otherwise assign its responsibilities for performance under this Agreement without the prior written consent of CDM Constructors Inc.

3. Subcontractor acknowledges that it has received the relevant flow-down provisions of the Prime Contract and agrees to be bound by all the terms and conditions of the Prime Contract insofar as each and every part thereof is applicable to this Agreement and to Subcontractor's Services. Subcontractor expressly assumes all obligations and responsibilities applicable to CDM Constructors Inc. under the Prime Contract and agrees that, in addition to any other rights and remedies afforded to CDM Constructors Inc. by this Agreement or law, CDM Constructors Inc. shall have the same rights and remedies against Subcontractor with respect to Subcontractor's Services that CDM Constructors Inc.'s client ("the Owner") has against CDM Constructors Inc. under the Prime Contract, all with the same force and effect as if set forth herein in full.

4. To the extent permitted by law, CDM Constructors Inc. shall pay to Subcontractor the amounts due to Subcontractor as requested in each mutually agreed upon Progress Payment Invoice by the thirtieth (30th) calendar day following CDM Constructors Inc.'s receipt of payment for such Services from the Owner; provided, however, that the amounts due to Subcontractor shall be reduced by ten (10%) percent of the amount due to Subcontractor, it being further understood and expressly agreed that receipt of payment by CDM Constructors Inc. from Owner shall be a condition precedent to CDM Constructors Inc.'s obligation to pay Subcontractor under this Agreement. If CDM Constructors Inc. receives payment from Owner for less than the full value of materials delivered to the site but not yet incorporated into the Services, or for less than full requested value of the Services performed, then the amount due Subcontractor on account thereof shall be proportionately reduced. All such invoices shall be submitted to CDM Constructors Inc. in accordance with the requirements of the Prime Contract and Owner's invoice format as applicable.

5. Subcontractor represents that, to the extent necessary to perform the Work, it has examined and acquainted itself with the conditions relevant to the Services, the site and its surroundings, and Subcontractor assumes the risk of such conditions and will fully complete the Services for the stated Contract Price. Information on the site and local conditions at such site furnished by CDM Constructors Inc. or Owner is not guaranteed by CDM Constructors Inc. or Owner and is furnished for the convenience only of Subcontractor.

6. Subcontractor shall comply strictly with all local, municipal, state, and federal safety and health laws, orders and regulations applicable to Subcontractor's operations in the performance of the Services hereunder. While on the premises of Owner, Subcontractor and its employees and agents shall comply with the requirements of the Occupational Safety and Health Act of 1970 (84 Stat. 1590), as amended, and any State plan approved under such Act, and the regulations thereunder, to the extent applicable, and shall comply with the safety, health and plant regulations of CDM Constructors Inc. and Owner, and shall ensure that all its employees and agents have a safe place of work on the premises of Owner.

7. The Scope of Work shall be subject to changes by additions, deletions or revisions thereto by CDM Constructors Inc. Subcontractor will be advised in writing of any such changes. Subcontractor shall promptly perform and strictly comply with each such change when released in writing. If Subcontractor believes that its performance of any change would justify modification of the Contract Price or time for performance of the Services, Subcontractor shall comply with this Section 7 or a mutually agreeable

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equitable modification of the Contract Price and/or time to perform the Services will be made to reflect additional costs and/or time to perform Services as changed. Subcontractor shall not suspend performance of this Agreement during the review and negotiation of any change, except as may be directed by CDM Constructors Inc. Subcontractor shall perform all changes in strict accordance with all the terms of this Agreement, including guarantees.

8. Subcontractor shall immediately notify CDM Constructors Inc. orally of any event which Subcontractor believes may give rise to a claim by Subcontractor for an increase in the Contract Price or in the scheduled time for performance. Within five (5) working days after the happening of such event, Subcontractor shall supply CDM Constructors Inc. with a statement supporting Subcontractor's claim, which statement shall include Subcontractor's detailed estimate of the change in Contract Price or schedule. CDM Constructors Inc. shall not be liable for, and Subcontractor hereby waives, any claim or potential claim of Subcontractor of which Subcontractor knew or should have known and which was not reported by Subcontractor in accordance with the provisions of this Article. Subcontractor agrees to continue performance of the Services during the time any claim of Subcontractor hereunder is pending. CDM Constructors Inc. shall not be bound to any adjustments in the Contract Price or scheduled time for Subcontractor's claim unless expressly agreed to by CDM Constructors Inc. in writing. No claim hereunder by Subcontractor shall be allowed if asserted after final payment under this Agreement.

9. Subcontractor shall commence and complete the Services in accordance with the schedule specified by CDM Constructors Inc. or Owner. If Subcontractor fails to employ sufficient competent personnel as may be required to perform the Services, or fails to perform in a manner acceptable to CDM Constructors Inc., or otherwise defaults, CDM Constructors Inc. may terminate this Agreement and Subcontractor shall indemnify and hold CDM Constructors Inc. harmless for all costs, expenses or damages (including, but not limited to, penalties or liquidated damages) arising out of such delay, default, or breach.

10. Subcontractor shall maintain all records and accounts pertaining to the Services performed on other than a solely lump sum basis for a period of at least two (2) years after final payment or longer if required by the Prime Contract. CDM Constructors Inc. and/or Owner shall have the right to audit, copy and inspect said records and accounts at all reasonable times during the course of such Work and for the above two-year period for the purpose of verifying costs incurred.

11. Subcontractor agrees to indemnify, defend and hold harmless Owner, CDM Constructors Inc., and their respective directors, employees, agents and assigns from and against any and all liabilities of every nature, including patent infringement, consequential, incidental and special damages, costs, penalties, claims, fines, forfeitures, causes of action, or suits and the costs and expenses incident thereto, including the costs of defense, settlement, and reasonable attorneys' fees, which Owner or CDM Constructors Inc. may incur, suffer, or be responsible for due to patent infringement, bodily injury or death of any person or damages to property, contamination or adverse effects on the environment or natural resources, or any violation of government laws, regulations or order caused by, arising out of, or in connection with the performance of the Services by Subcontractor, its employees, sub-subcontractors or agents, the failure or inadequacy of Subcontractor's equipment or by Subcontractor's breach of any term or condition of this Agreement or the Prime Contract.

12. **Insurance** Prior to beginning work under this Subcontract, Subcontractor shall obtain the insurance required below from companies that are duly licensed or authorized to issue policies in the jurisdiction in which the Project is located. Subcontractor shall provide CDM Constructors Inc. a completed certificate of insurance and policy endorsements evidencing the required coverage. The certificate of insurance and endorsements shall be properly completed on current ACORD forms or equivalent forms compliant with applicable state law. CDM Constructors Inc. may withhold payments to Subcontractor until Subcontractors complies with the insurance requirements contained in this Section 12 Insurance. Subcontractor shall procure and maintain the following insurance coverage with minimum limits as follows:

1. Commercial General Liability (CGL) General aggregate limit applies separately to project	• Each Occurrence $1,000,000 • Medical Expenses (any one person) $10,000 • Personal & Advertising Injury $1,000,000 • General Aggregate $2,000,000 • Products/Completed Operations - Aggregate

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and location. CGL shall include full contractual liability coverage for Subcontractor's indemnity obligations.	$2,000,000 (maintain for one year after final payment)
2. Automobile Liability Auto shall include owned, non-owned and hired vehicles.	• Combined Single Limit $1,000,000
3. Workers' Compensation	• Statutory limits
4. Employers' Liability	• Each Accident $500,000 • Disease—Policy Limit $1,000,000 • Disease—Each Employee $500,000

The commercial general liability insurance and automobile liability insurance policies shall (1) name CDM Constructors Inc., OWNER and the following: City of League City, TX and CLEAR CREEK INDEPENDENT SCHOOL DISTRICT as additional insureds; (2)shall state that such insurance is primary with respect to the additional insureds and that any insurance maintained by the additional insureds shall be excess and non-contributory; (3) contain cross-liability and severability of interest provisions and (4) contain a waiver of subrogation in favor of CDM Constructors Inc., OWNER and the additional insureds . The workers' compensation and employer's liability policy shall also contain a waiver of subrogation in favor of CDM Constructors Inc. Subcontractor shall provide CDM Constructors Inc. written notice at any time it becomes aware of any cancellation, non-renewal or reduction of coverage of any of the required insurance policies.

These insurance requirements do not establish any limit on Subcontractor's liability under the terms of the subcontract. All insurance shall be on an occurrence basis. Deductibles shall be the sole responsibility of Subcontractor. Failure of CDM Constructors Inc. to require production of certificates or endorsements, or failure to identify a deficiency from the certificates produced shall not constitute a waiver of these requirements.

Unless otherwise indicated, Subcontractor shall maintain the required policies until final payment. Failure to procure and maintain insurance is a material breach of this Agreement. If any of the foregoing policies are required to remain in force after final payment, an additional certificate evidencing continuation of such coverage shall be submitted with the final application for payment. The fact that Subcontractor has obtained the insurance required in this Article shall in no manner lessen nor affect Subcontractor's other obligations or liabilities set forth in this Agreement.

13. Subcontractor agrees to defend, indemnify and hold harmless CDM Constructors Inc. and Owner from and against all laborers', materialmen's, and mechanics' liens arising from Subcontractor's performance of the Services, and shall keep the premises of Owner free from all such claims, liens, and encumbrances. To the full extent permitted by law, Subcontractor waives all rights of mechanic's lien against the property and premises of Owner. If Subcontractor fails to release and discharge any claim of lien of others against Owner's property within five (5) working days after receipt of notice from CDM Constructors Inc. to remove such claim of lien, CDM Constructors Inc. may, at its option, discharge or release the claim of lien, or otherwise deal with the lien claimant, and Subcontractor shall pay CDM Constructors Inc. any and all costs and expenses of CDM Constructors Inc. in so doing, including reasonable attorneys' fees incurred by CDM Constructors Inc.. In the event any claim has been asserted against Subcontractor, CDM Constructors Inc. or Owner, or any lien has been filed with respect to the Services performed, further payment shall not become due until all such claims or liens have been released and/or discharged without cost or expense to CDM Constructors Inc.. CDM Constructors Inc. may, in default of Subcontractor's obligation to do so, procure the release of any such claim or lien, and deduct all costs and expenses incurred in so doing from any money due hereunder or to use monies owed on other projects to offset costs and expenses. If final payment has been made, Subcontractor shall reimburse CDM Constructors Inc. for all monies paid to release any

such claim or lien. SUBCONTRACTOR shall complete and submit with every invoice a Conditional Waiver and Release of Lien Rights form, Exhibit G. Invoices submitted without this completed form attached will be returned to the SUBCONTRACTOR.

14. Subcontractor warrants that its work will conform with tbe requirements of this Agreement and with any special terms pertinent to the work specified by CDM Constructors Inc.. Subcontractor represents and warrants that it shall be responsible for the professional and technical accuracy, adequacy and standards of all work performed under this Agreement, including but not limited to, as applicable to the Services, supervision, inspection and testing practices; all work is free from defects, incorporates the specifications, safety margins and other criteria specified for the Services, and is fit for the purposes intended; all design or construction work and any materials or equipment furnished are in compliance with all applicable statutes and regulatory codes of any federal, state or local governmental body having jurisdiction over the Services; and quality control procedures meet EPA or other applicahle regulatory standards or requirements.

15. CDM Constructors Inc. may suspend or terminate all or part of the Services with or without cause by written notice to Subcontractor. If termination is without cause, Subcontractor shall be compensated for work performed and materials and equipment supplied to the date of termination. If termination is with cause, Subcontractor shall be compensated only for those portions of the Services acceptable to CDM Constructors Inc. Upon termination and unless otherwise directed by CDM Constructors Inc., Subcontractor shall promptly deliver to CDM Constructors Inc. all Services whether completed or in process and all information and materials previously received by Subcontractor from CDM Constructors Inc..

16. CDM Constructors Inc. may offset any amount due from Subcontractor, whether or not any Change Order is issued to Subcontractor, and CDM Constructors Inc. may withhold from Subcontractor any amount sufficient to reimburse CDM Constructors Inc. for any loss, damage, expense, or liability for Subcontractor's actual or alleged failure to comply with the provisions of this Agreement.

17. All drawings, specifications, reports, summaries and other technical information developed pursuant to this Agreement shall be the property of CDM Constructors Inc.. Upon completion of the work, or at any time upon request of CDM Constructors Inc., Subcontractor shall deliver all such documents to CDM Constructors Inc. and retain one copy for its records.

18. All information furnished to Subcontractor by CDM Constructors Inc. or developed by Subcontractor in the course of performing the Services under this Agreement, whether or not it is marked "Proprietary" or "Confidential," shall be deemed to be the proprietary business information of CDM Constructors Inc.. Subcontractor agrees not to disclose such information, directly or indirectly, to any third party nor to use such information other than in the performance of the Services and agrees not to use such information other than in the performance of the Services and agrees not to use CDM Constructors Inc. or CDM Constructors Inc.'s Owner's names for promotional or other purposes without CDM Constructors Inc.'s prior written consent.

19. The Provisions contained in Articles 2, 3, 4, 8, 10 and 13, shall survive and remain in effect following the termination of this Agreement.

20. If any section, subsection, sentence or clause of this Agreement shall be deemed to be illegal, invalid or unenforceable for any reason, such illegality, invalidity or unenforceability shall not affect the legality, validity or enforceability of other sections of this Agreement.

21. SUBCONTRACTOR shall be subject to and comply with the requirements of CDM Smith's Code of Ethics, which is hereby incorporated into this Agreement, and which is available to SUBCONTRACTOR on CDM Smith's web site at: www.cdmsmith.com.

22. **Dispute Resolution.** In the event of any dispute between the parties arising out of or in connection with the contract or the services or work contemplated herein; the parties agree to first make a good faith effort to resolve the dispute informally. Negotiations shall take place between the designated principals of each party. If the parties are unable to resolve the dispute through negotiation within 45 days, then either party may give written notice within 10 days thereafter that it elects to proceed with non-binding mediation pursuant to the commercial mediation rules of the American Arbitration Association. In the event that mediation is not invoked by the parties or that the mediation is unsuccessful in resolving the dispute, then either party may submit the controversy to a court of

competent jurisdiction. The foregoing is a condition precedent to the filing of any action other than an action for injunctive relief or if a Statute of Limitations may expire.

Each party shall be responsible for its own costs and expenses including attorneys' fees and court costs incurred in the course of any dispute, mediation, or legal proceeding. The fees of the mediator and any filing fees shall be shared equally by the parties.

23. **Nondiscrimination.** In connection with its performance under this Subcontract, SUBCONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, age, sex, marital status, sexual orientation or affectional preference, national origin, ancestry, citizenship, genetics, physical or mental disability or because he or she has protected veteran status. SUBCONTRACTOR certifies that it has an affirmative action policy ensuring equal employment opportunity without regard to race, color, national origin, sex, age, religion, protected veteran status or disability, that it maintains no employee facilities segregated on the basis of race, color, religion or national origin and that it is not debarred or suspended from being awarded federal or federally assisted contracts.

The subcontractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship

THE FOLLOWING CLAUSES ARE HEREBY INCORPORATED AND APPLY AS FOLLOWS:

41 CFR § 60-1.4(a) TO ALL SUBCONTRACTS FOR ANY FEDERAL CONTRACT IN EXCESS OF $10,000

41 CFR § 60-4.3(a) TO ALL SUBCONTRACTS FOR FEDERALLY ASSISTED CONSTRUCTION CONTRACTS IN EXCESS OF $10,000

41 CFR § 60-300.5(a) TO ALL SUBCONTRACTS FOR ANY FEDERAL CONTRACT IN EXCESS OF $100,000 OR MORE

41 CFR § 60-741.5(a) TO ALL SUBCONTRACTS FOR ANY FEDERAL CONTRACT IN EXCESS OF $10,000

SUBCONTRACTOR shall abide by the requirements of 41 CFR § 60-1.4(a), 60-4.3(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

Upon request of CONTRACTOR, SUBCONTRACTOR will furnish it with a certificate satisfactory in form to CONTRACTOR that goods furnished by SUBCONTRACTOR in performance of this Agreement were produced in full compliance with the requirements of Sections 6, 7, and 12 of the Fair Labor Standards Act of 1938, as amended, and the regulations and orders of the U.S. Department of Labor issued under Section 14 thereof.

Attachment A

Quote

Scope of Work

Global Cathodic Protection, Inc.
Quality Service Since 1977 A CerAnode™ Company
P.O. Box 5189, Houston, TX 77262
Phone: 713-784-9588 Fax: 713-953-9395 Toll: 800-235-0970
www.globalcorrosion.com

November 4, 2014

Jennifer Paradis
CDM Constructors
paradisjl@cdmsmith.com

RE: League City Southshore Harbor Job

Jennifer:

The following is a quote for the referenced project cathodic protection installation:

MATERIALS:	$13,450.00
LABOR:	$20,000.00
TOTAL:	$33,450.00

The main contractor will install all bonding wires and AC power to the rectifier.
Global Cathodic Protection will install the deepwell, rectifier, junction box, concrete pad, bollards, etc. to complete this project. We will provide all materials.

Respectfully submitted,

Baker Davis
GLOBAL CATHODIC PROTECTION, INC.
baker@globalcorrosion.com

SCOPE OF WORK – CATHODIC PROTECTION FOR PIPELINES

1. GENERAL DESCRIPTION OF SCOPE:

Furnish all labor, materials, equipment, and incidentals required to design (PE stamp), furnish, and install the cathodic protection system for buried steel, ductile iron, and concrete cylinder pipe piping using rectifiers and deep anodes, complete as shown and specified on the Drawings and as specified per 16640.

See attached detailed item list

2. INCLUSIONS

1) All work shall be coordinated with the CDM Constructors Field Management Team prior to starting any work. All work will be conducted inside construction limits as defined by CDM Constructors Inc.
2) Design (PE stamp) Cathodic Protection system for buried steel, ductile iron, and concrete cylinder pipe piping as shown on the Drawings using rectifiers and deep anodes.
3) Furnish all materials
4) 2 (two) site visits to certify CDM Constructors' field crew for Test station installation
5) Installation of sacrifical anodes; auger, place, and backfill.
6) Installation of deep well anode cathodic protection system by a qualified well driller and according to the specifications.
7) Install reinforced concrete pad, and pipe bollards.
8) Installation of cathodic protection rectifiers; mount rectifiers on concrete pad.
9) Equip rectifiers with engraved nameplates.
10) Installation of anode lead junction box inside cathodic protection cabinet.
11) Test, inspect, energize, and adjust the cathodic protection system soon after equipment installation, by a Corrosion Engineer.
12) Final check out survey (includes report)
13) Coordination with other subcontractors on site
14) Field services for all items must be provided within no more than three (3) calendar weeks of receipt of written request by CCI
15) All submittal and O&M Manuals requirements per specs section 16640
16) Allow for a three (3) calendar weeks period for submittal reviews. It is the vendor's responsibility to insure complete compliance with contract submittal requirements in order to receive at least an "Approved as Noted" status by Engineer. Additional contract time required to revise and resubmit submittals will not be granted and must be made up by vendor in the fabrication and delivery phase as needed.
17) Insurance
18) Payment terms are Net 42 from invoice date 5% retainage on all invoices.

3. EXCLUSIONS:

1) Installation of bonding wires
2) Installation of AC power to rectifier
3) Procurement of Third party inspections
4) Bonds
5) Dumpsters
6) Portalets
7) Sales tax on incorporated materials

CCR #002

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**002**	**Date:**	**12/23/2015**
CHANGE DESCRIPTION	Water Well Construction Delays related to Wasteline not having a hydrogeologist report conducted durng the design phase. See the attached letter.		
AMOUNT ($):	$61,760	**ROM TIME IMPACT (DAYS):**	**0**

CDM Smith

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY: Paradis/Nicholson**

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 12/23/2015

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	GENERAL CONDITIONS MANHOURS	GENERAL CONDITIONS RATE	GENERAL CONDITIONS TOTAL	LABOR MANHOURS	LABOR RATE	LABOR TOTAL	MATERIAL UNIT PRICE	MATERIAL TOTAL	EQUIPMENT UNIT PRICE	EQUIPMENT TOTAL	SUBCONTRACT UNIT PRICE	SUBCONTRACT TOTAL	TOTAL
CDM Constructors Inc. Labor																
	Well Delays - Additional Testing / Increase Well Casin and Screen Size	1	LS											$ 61,760	$ 61,760	$ 61,760
CCI General Conditions																$ -
	Delay- Extended General Conditions@$97,283/month	0	W.Days	0.0	$ 4,633	$ -				$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Per attached CDM letter to COLC - Jan 13, 2015									$ -	$ -	$ -	$ -	$ -	$ -	$ -
				0.0		**$ -**	**0.0**		**$ -**						**$ 61,760**	**$ 61,760**

Memo

League City South Shore Harbour (SSH) Booster Pump Station Improvements

To: *Jody Hooks, Public Works Manager, City of League City*
Bobby Morrison, Senior Project Manager, City of League City
Cecil Bowery, Project Manager, City of League City

From: *Mike Clarke*

Date: *January 13, 2015*

Subject: *Water Well*

On November 26, 2014 a conference call was conducted with the City of League City, CDM Constructors, Inc., CDM Smith engineers, Weisinger, and LBG-Guyton, to review the attached report written by LBG-Guyton regarding the pilot hole data and recommended water samples. The report recommended collecting two samples, the first at a depth of 440'-460' and the second at a depth of 570'-590'. After discussing during the call, LBG-Guyton revised their recommendation for the second depth of testing to be conducted at 560'-580' in lieu of 570'-590'. All parties were in agreement and Weisinger proceeded to collect the samples on December 8th and 10th, 2014. Weisinger's base bid included performance of one (1) water quality test and provided an alternate of $35,000 for each additional water quality test as requested.

On January 5, 2015 another conference call was conducted with the same parties to discuss the results of the water quality tests since the levels of iron and aluminum were above secondary limits in both samples and there were also problems with water color. However, per the attached Memo from LBG-Guyton dated January 6, 2015, they estimate that the iron, aluminum, and color will decline below required standards.

Finally, the City raised concerns during both calls about the potential capacity of the well which based on the pilot hole evaluation was estimated between 800-1,200 gpm, far below the design capacity of 1,500 gpm. It was proposed by Weisinger and LBG-Guyton to upsize the casing and screen & liner of the well from the original design size of 20" x 14" to 24" x 18" to improve the potential capacity (see attached material setting diagrams for both options). Per the attached LBG-Guyton Memo, they recommend increasing the size of the well and believe there is a 90% likelihood the well will achieve a production capacity of 1,200 gpm. The attached material setting costs show a net increase of $26,170 for the larger well size and a net decrease of $3,160 for the original well size. The unit pricing (per LF) for the 20" casing and 14" screen & liner were as quoted in their original bid. The 24" casing and 18" screen & liner prices were not requested as alternates at bid time. Weisinger does not currently anticipate any changes in pump sizing or associated pump costs.

To summarize, the following costs will be incurred:

- Additional water quality test = $35,000
- Increase well size = $26,170
- **Total additional costs = $61,760**

Furthermore, the construction of the well, which is on the critical path of project, was delayed while coordinating these discussions. Therefore, we would request a change order for the additional costs of $61,760 and an additional ten (10) days of time with no increase to the general conditions.

Sincerely,

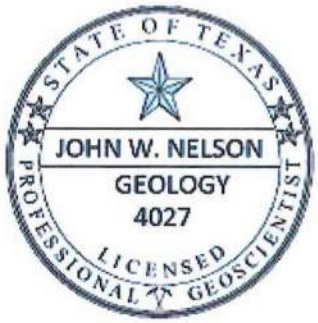
Mike Clarke, Project Manager
CDM Constructors, Inc.

LBG-GUYTON ASSOCIATES

PROFESSIONAL GROUNDWATER AND ENVIRONMENTAL ENGINEERING SERVICES

11111 KATY FREEWAY
SUITE 850
HOUSTON, TX 77079
713-468-8600
FAX No.: 713-468-4956

Texas Geoscience Firm License No. 50111



John W. Nelson
11/18/2014

MEMORANDUM

TO: Mike Weisinger, Weisinger Incorporated

FROM: John W. Nelson, P.G.

DATE: November 18, 2014

SUBJECT: City of League City – South Shore Harbour Pump Station Well – Review of Pilot Hole Data and Logs and Recommended Water Samples

Introduction

The CDM Smith (Engineer) Gravel Wall Water Well specifications, Section 13500, specify that Weisinger Incorporated (Weisinger, well contractor) have LBG-Guyton Associates (LBG-G, consultant) perform review and evaluation of the City of League City (Owner) South Shore Harbour Pump Station Well pilot hole data and geophysical logs. This memorandum provides information regarding LBG-G review of the pilot hole data and logs and recommendations regarding pilot hole water sampling prior to making final decisions regarding the well construction. Electronic copies of the geophysical logs are attached. Also attached are copies of part of the pilot hole induction – gamma ray log and density – neutron log with LBG-G notes added, the Weatherford log interpretation letter and the electric log and map for an oil and gas test hole in the area.

Pilot Hole Drilling and Sand Samples

As specified, Weisinger drilled the pilot hole to a total depth of approximately 700 feet. Weisinger reported that drill cutting samples of the sands were collected from the pilot hole and have been sent to a screen company for sieve analyses. When the sieve analyses are available, the data can be evaluated to help select the gravel pack gradation and screen slot size.

Geophysical Logs

Induction – Gamma Ray Log

Weatherford completed the specified geophysical logs in the pilot hole on 11/15/2014. The induction or resistivity logs (blue solid line and dashed red line on the right) shows freshwater sands below a depth of 390 feet in all or part of the following approximate depth intervals 390 to 405, 415 to 430, 440 to 455, 500 to 540, 550 to 580 and 640 to 650 feet. There are also sands at shallower depths but they are too shallow for a large-capacity public supply well and some of the sands between 390 and 650 feet might not be screened in a well.

The gamma ray log (solid green line on left) measures natural radioactivity in close proximity to the pilot hole and the log shows relatively low readings of less than 100 API units from about 50 to 675 feet, which is good. Weatherford performed a spectral gamma ray log but it was not provided and is not necessary because the gamma ray readings on the induction – gamma ray log were low

Density – Neutron Porosity Log (Gas Log)

The density – neutron porosity log has a few cross-overs of the neutron porosity curve (red dashed line on right) to the right of the density porosity curve (purple solid line on right) in the shallow depths between about 85 and 210 feet that may or may not be gas. Some or most of the cross-overs may be due to changes in the diameter of the borehole (see caliper log (dashed red line on left)) and loss of contact between the logging tool and the wall of the pilot hole.

A copy of the Weatherford 11/15/2014 letter is attached and provides their interpretations regarding possible natural gas, water bearing sands and radioactivity. Weatherford's opinions are that: the possible gas indications in the shallow depths are due to the pilot hole rugosity and loss of density pad contact and are invalid; water bearing sands are present between 80 and 651 feet; and no elevated uranium readings were detected.

A copy of the electric log and a location map for a 1959 oil and gas test hole, 3G, is attached for review. The 3 G test hole location is generally east of the pilot hole location and the electric log shows about 100 to 105 feet of sand with resistivity of more than 10 ohm-meters in the depth interval from about 395 to 700 feet and only about 60 feet from 500 to 700 feet. Below a depth of 700 feet, the 3G electric log shows only about 25 feet of sand (1,025 to 1,050 feet) with a resistivity value of more than 10 ohm-meters. Comparing the 2014 pilot hole induction log to the 3G electric log shows generally similar sand thicknesses between about 390 and 700 feet, although the depths of the comparable sands in the 1959 test hole are about 5 to 50 feet deeper. Based on the 3G electric log, LBG-G does not believe that drilling and logging the pilot hole to a deeper depth is likely to show much more fresh water sand below 700 feet.

Pilot Hole Water Sampling and Recommendations

LBG-Guyton recommends that pilot hole water sampling using the temporary test well method be completed in at least two depth intervals that might be screened in the production well. LBG-G does not recommend using the formation tester method because there is no

development pumping performed prior to sampling and the sampling method allows introduction of considerable drilling mud and fluids that can result in poor and unreliable water sample analyses.

The pilot hole water sample analyses will be useful in evaluating whether the groundwater quality is acceptable in some but not all of the prospective sands prior to making final decisions regarding the well construction and material settings. Weisinger and LBG-G cannot guarantee groundwater quality, even if one or more pilot hole water samples are completed, but site-specific groundwater quality data help in evaluating the well completion options. If no pilot hole water sampling is performed in the pilot hole and the production is constructed, then the risk increases of a possible groundwater quality issue that might have been identified prior to well construction by completing pilot hole water sampling.

Recommended Depth Intervals for Temporary Test Well Screens

Recommendations follow for two (minimum), three or four depth intervals, if the screen length is 20 feet, and these depths are also listed on the attached induction – gamma ray log with LBG-G notes.

Screen 440 to 460 feet (minimum recommended).
Screen 510 to 530 feet (if 3 test well samples are approved).
Screen 570 to 590 feet (minimum recommended).
Screen 635 to 655 feet (if 4 test well samples are approved).

The shallowest depth interval from 440 to 460 feet is recommended because it could be the upper sand or an upper sand that is screened in the well, if the groundwater quality is acceptable. The depth interval from 570 to 590 feet is recommended because the resistivity declines in the sand from about 565 to 590 feet, which may be due to the sediments containing more clay and being finer grained and/or the total dissolved solids concentration could be higher. The depth interval from 510 to 530 feet is recommended as a possible additional sample interval because the sand from about 500 to 540 feet is the thickness sand unit with the highest resistivity and likely would be the most productive sand screened in the well. The deepest depth interval from 635 to 655 feet is recommended as a possible additional sample interval but only includes about 10 feet of sand that might or might not be screened in the production well.

The specifications for the the pilot hole water sampling and chemical and radionuclide analyses are in Section 13500, 3.01 J. LBG-G recommends that the water sample analyses also include analyses for dissolved turbidity, aluminum, arsenic, fluoride, iron and manganese. LBG-G's experience in Texas and elsewhere is that elevated color and/or turbidity readings for pilot hole or test well water samples that are higher than allowed for water discharging from a public supply well are not unusual and probably result from some dissolved drilling mud remaining in the discharging water, even after considerable development pumping of a temporary test well by the well contractor. The elevated color or turbidity may result in concentrations of aluminum, arsenic, iron and/or manganese for the water sample that are higher than the corresponding TCEQ drinking water standards for a public supply well.

Preliminary Well Construction Information and Estimates

The Engineer's production well design estimates including 20-inch diameter casing with 136 feet of 14-inch diameter screens in part of the depth interval from 490 to 640 feet and a total well depth of 650 feet. The estimated depths of the principal aquifer sands with higher resistivities from 490 to 650 feet is pretty accurate but the available sand thickness to screen is about 60 percent of the preliminary estimate for this depth interval. The thick Alta Loma Sand is present in the bottom portion of the Chicot aquifer to the west of this well site and is screened in productive public supply wells, including City of League City wells to the west. Unfortunately, the massive Alta Loma Sand is not present at this well location.

Due to the limited sand thickness present in the pilot hole, LBG-G's preliminary estimate for the production well pumping rate is about 800 to 1,000 gpm, if the quality of the groundwater in the aquifer sands from about 450 to 650 feet is acceptable and the well is properly constructed and thoroughly developed by Weisinger. Even if this preliminary estimated pumping rate or a higher rate is achievable, the well specific capacity will be reduced, the pumping level and pump setting will be deeper and the motor horsepower requirement will be higher than if there was about 130 to 140 feet or more of good sand thickness available for screening below a depth of about 450 feet.

Please review this information and attachments and contact us if you or others with Weisinger, CDM Smith and/or the City of League City have any related questions or comments. If desired, LBG-G personnel can participate in a conference call.

Sent via E-mail with file attachments

U:\JN\Projects\GalvestonCo\League City\South Shore Harbour WellPilot Hole & Well\Pilot Hole Review1_11182014.doc

Weatherford®

Array Induction
Gamma Ray Log

COMPANY	Weisinger Incorporated
WELL	City of League City - South Shore Harbour Well
FIELD	Water Well
PROVINCE/COUNTY	Galveston
COUNTRY/STATE	USA / TX
LOCATION	2800 FM 518 East League City, TX 77573
PERMIT NUMBER	N/A

SEC	TWP	RGE	Other Services
Latitude			Spectral Gamma Ray
Longitude			Density Neutron
API Number		N/A	

Permanent Datum G.L., Elevation 16.00 feet	Elevations:	feet
Log Measured From KB	KB	24.00
Drilling Measured From KB @ 24.00	DF	23.00
	GL	16.00

Date	15-Nov-2014			
Run Number	One			
Service Order	6281-103263376			
Depth Driller	700.00	feet		
Depth Logger	700.00	feet		
First Reading	696.00	feet		
Last Reading	50.00	feet		
Casing Driller	0.00	feet		
Casing Logger	0.00	feet		
Bit Size	9.875	inches		
Hole Fluid Type	Water Based			
Density / Viscosity	9.20 lb/USg	48.00 CP		
PH / Fluid Loss	9.00	8.50 ml/30Min		
Sample Source	Flowline			
Rm @ Measured Temp	10.0 @ 80.0	ohm-m		
Rmf @ Measured Temp	8.50 @ 80.0	ohm-m		
Rmc @ Measured Temp	12.50 @ 80.0	ohm-m		
Source Rmf / Rmc	Calc	---		
Rm @ BHT	10.0 @ 80.0	ohm-m		
Time Since Circulation	2 Hrs			
Max Recorded Temp	80.00	deg F		
Equipment / Base	13042	---		
Recorded By	Jose Ramon Del Villar Chi			
Witnessed By	Keith Ahee			
Rig Name	Weisinger Rig No.6			

BOREHOLE RECORD

Last Edited: 15-NOV-2014 11:10

Bit Size inches	Depth From feet	Depth To feet
9.875	0.00	700.00

REMARKS

1) Software Version Used 14.05.5280

2) Service Order 6281-103263376

3) Tools Run: MAI, MPD, MDN, MFE, SGS, MCG, SHA, MTA, CBH

4) Hardware:
MAI: 5 Inch Stand Off, Pumpkin
MDN: Dual Neutron Bowspring Used

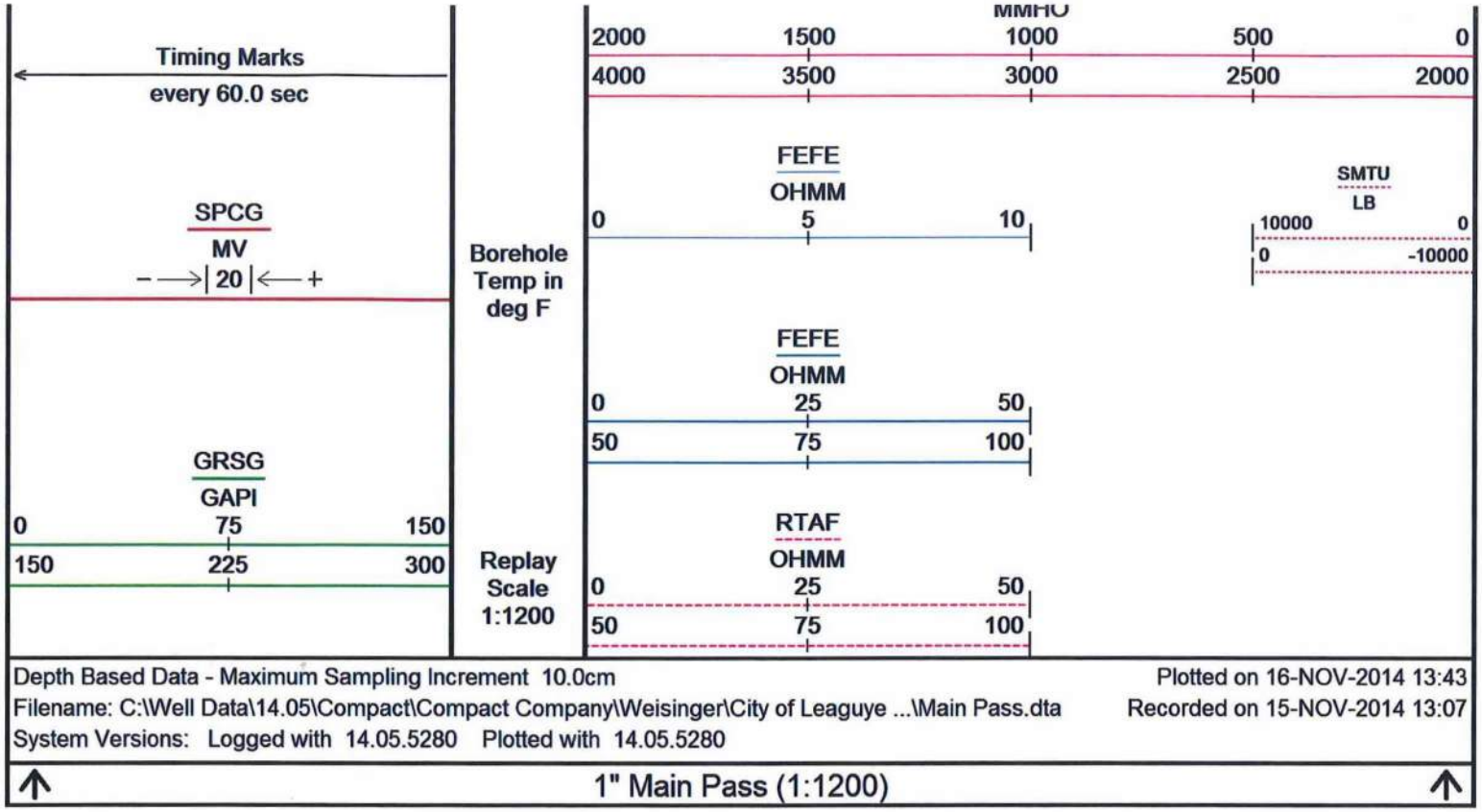
5) 2.65 g/cc Matrix Density used to calculate porosities

6) RWA Calculated using A=0.62, M=2.15

7) All intervals and scales logged as per customer request

8) Annular volume not calculated as per customer request

9) CREW:
M. Green - OPERATOR
Q. Blake - OPERATOR


Timing Marks
every 60.0 sec
SPCG
MV
20
GRSG
GAPI
0
75
150
150
225
300
Borehole Temp in deg F
Replay Scale 1:1200
MMHO
2000
1500
1000
500
0
4000
3500
3000
2500
2000
FEFE
OHMM
0
5
10
FEFE
OHMM
0
25
50
50
75
100
RTAF
OHMM
0
25
50
50
75
100
SMTU
LB
10000
0
0
-10000
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 16-NOV-2014 13:43
Filename: C:\Well Data\14.05\Compact\Compact Company\Weisinger\City of Leaguye ...\Main Pass.dta
Recorded on 15-NOV-2014 13:07
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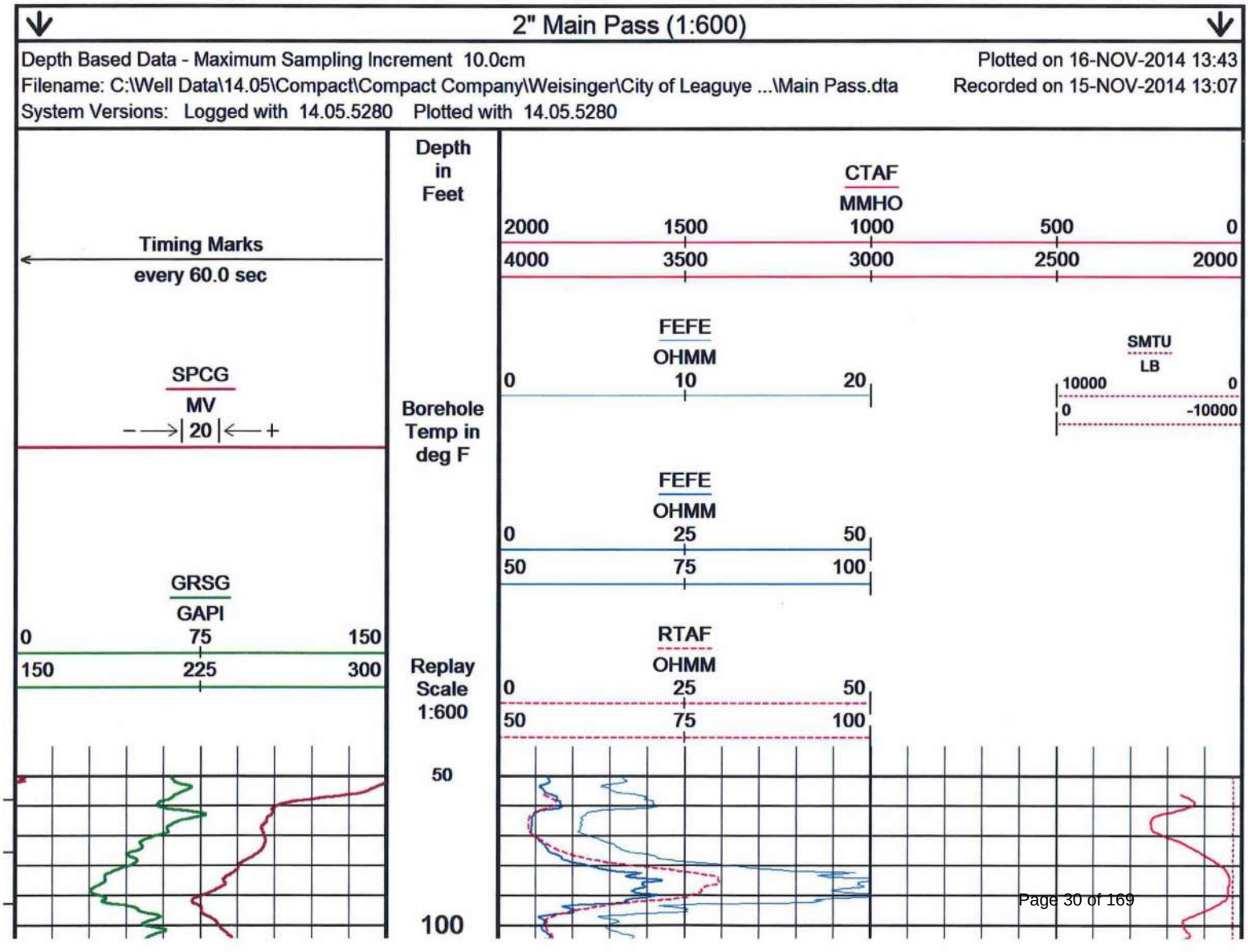
1" Main Pass (1:1200)


2" Main Pass (1:600)
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Recorded on 15-NOV-2014 13:07
System Versions: Logged with 14.05.5280 Plotted with 14.05.5280
Timing Marks
every 60.0 sec
SPCG
MV
20
GRSG
GAPI
0
75
150
150
225
300
Depth in Feet
Borehole Temp in deg F
Replay Scale 1:600
CTAF
MMHO
2000
1500
1000
500
0
4000
3500
3000
2500
2000
FEFE
OHMM
0
10
20
FEFE
OHMM
0
25
50
50
75
100
RTAF
OHMM
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75
100
SMTU
LB
10000
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50
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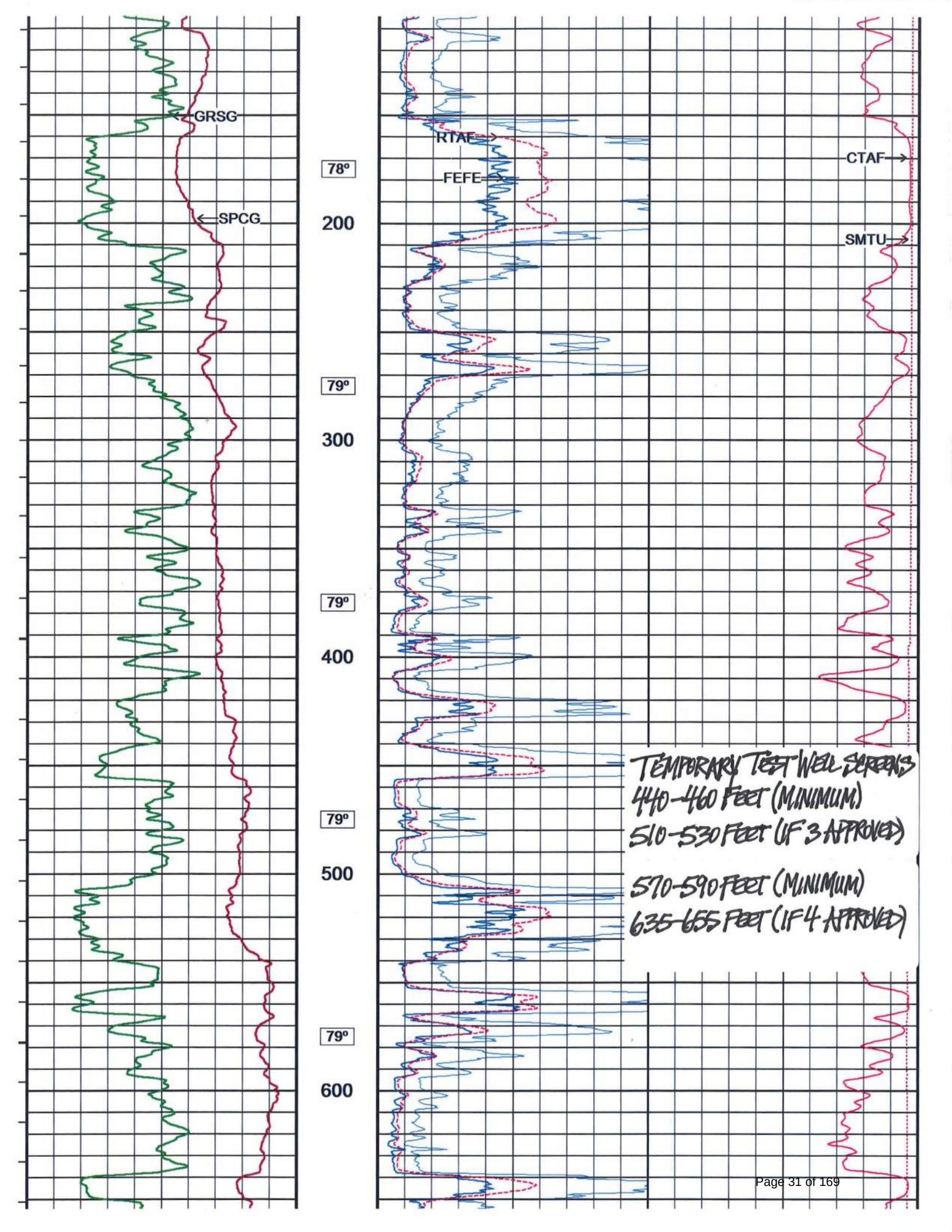
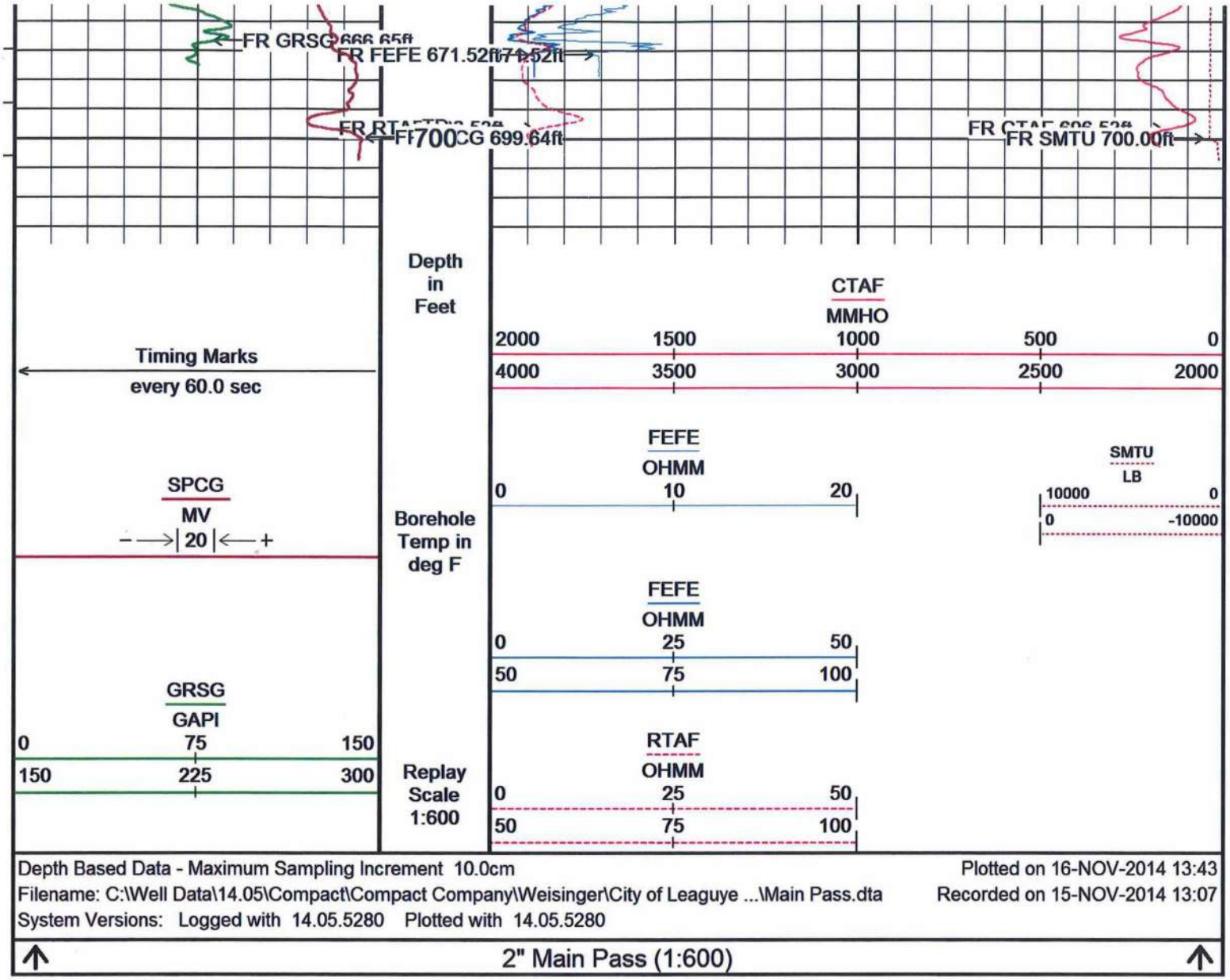
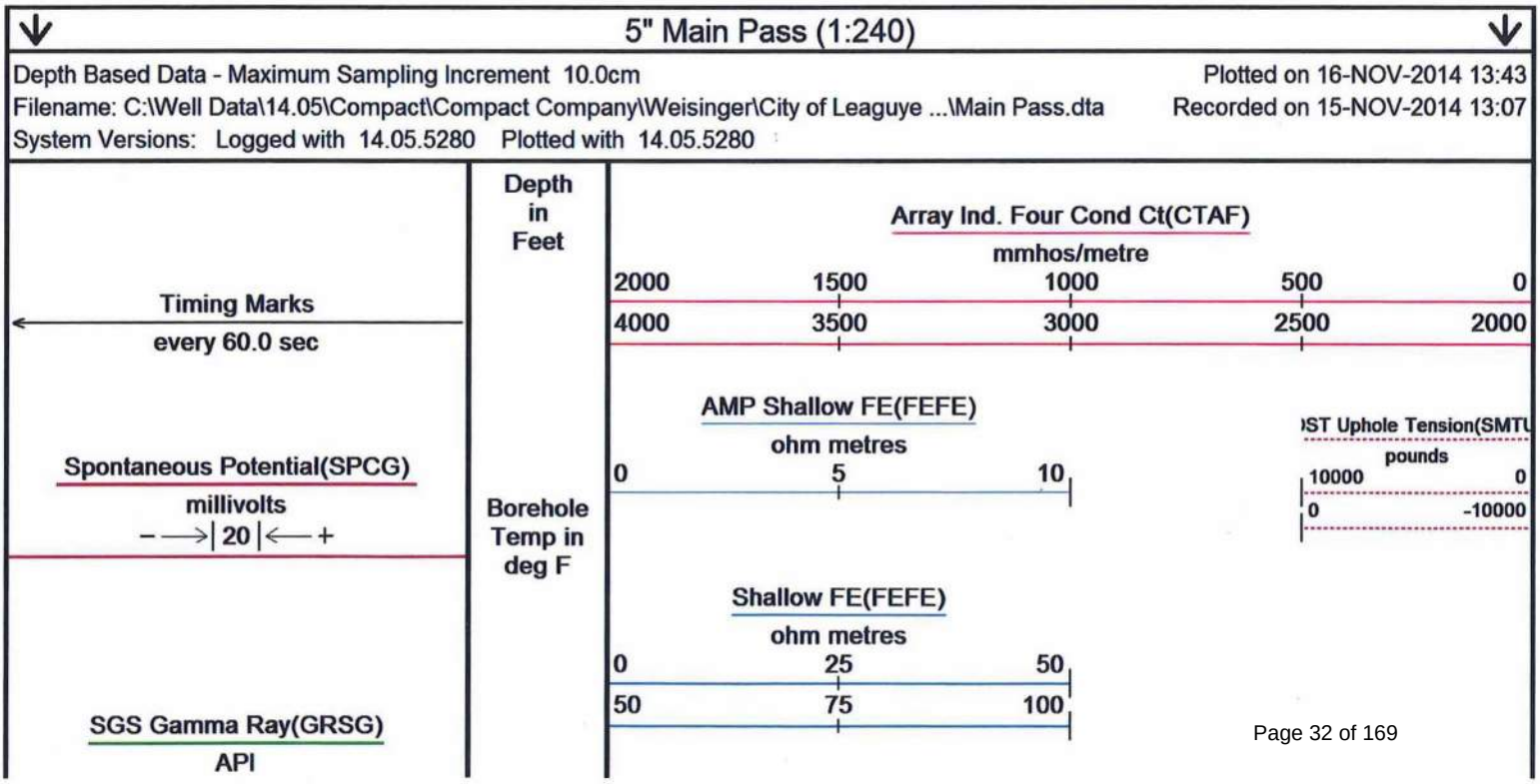

GRSG
SPCG
RTAF
FEFE
CTAF
SMTU
78°
79°
79°
79°
79°
200
300
400
500
600
TEMPORARY TEST WELL SCREENS
440-460 FEET (MINIMUM)
510-530 FEET (IF 3 APPROVED)
570-590 FEET (MINIMUM)
635-655 FEET (IF 4 APPROVED)


FR GRSG 666.65ft
FR FEFE 671.52ft
FR SMTU 700.00ft
CG 699.64ft
Depth in Feet
CTAF
MMHO
2000 1500 1000 500 0
4000 3500 3000 2500 2000
Timing Marks
every 60.0 sec
FEFE
OHMM
0 10 20
SMTU
LB
10000 0
0 -10000
SPCG
MV
– 20 +
Borehole Temp in deg F
FEFE
OHMM
0 25 50
50 75 100
GRSG
GAPI
0 75 150
150 225 300
RTAF
OHMM
0 25 50
50 75 100
Replay Scale 1:600
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 16-NOV-2014 13:43
Filename: C:\Well Data\14.05\Compact\Compact Company\Weisinger\City of Leaguye ...\Main Pass.dta
Recorded on 15-NOV-2014 13:07
System Versions: Logged with 14.05.5280 Plotted with 14.05.5280
2" Main Pass (1:600)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Recorded on 15-NOV-2014 13:07
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Depth in Feet
Array Ind. Four Cond Ct(CTAF)
mmhos/metre
2000 1500 1000 500 0
4000 3500 3000 2500 2000
Timing Marks
every 60.0 sec
AMP Shallow FE(FEFE)
ohm metres
0 5 10
ST Uphole Tension(SMTU
pounds
10000 0
0 -10000
Spontaneous Potential(SPCG)
millivolts
– 20 +
Borehole Temp in deg F
Shallow FE(FEFE)
ohm metres
0 25 50
50 75 100
SGS Gamma Ray(GRSG)
API

Weatherford®

Density-Neutron Gamma Ray Log

COMPANY	Weisinger Incorporated
WELL	City of League City - South Shore Harbour Well
FIELD	Water Well
PROVINCE/COUNTY	Galveston
COUNTRY/STATE	USA / TX
LOCATION	2800 FM 518 East League City, TX 77573
PERMIT NUMBER	N/A

SEC	TWP	RGE	Other Services
Latitude			Spectral Gamma Ray — Array Induction
Longitude			
API Number		N/A	

Permanent Datum G.L., Elevation 16.00 feet
Log Measured From KB
Drilling Measured From KB @ 24.00

Elevations:	feet
KB	24.00
DF	23.00
GL	16.00

Date	15-Nov-2014			
Run Number	One			
Service Order	6281-103263376			
Depth Driller	700.00	feet		
Depth Logger	700.00	feet		
First Reading	687.00	feet		
Last Reading	50.00	feet		
Casing Driller	0.00	feet		
Casing Logger	0.00	feet		
Bit Size	9.875	inches		
Hole Fluid Type	Water Based			
Density / Viscosity	9.20 lb/USg	48.00 CP		
PH / Fluid Loss	9.00	8.50 ml/30Min		
Sample Source	Flowline			
Rm @ Measured Temp	10.0 @ 80.0	ohm-m		
Rmf @ Measured Temp	8.50 @ 80.0	ohm-m		
Rmc @ Measured Temp	12.50 @ 80.0	ohm-m		
Source Rmf / Rmc	Calc	---		
Rm @ BHT	10.0 @ 80.0	ohm-m		
Time Since Circulation	2 Hrs			
Max Recorded Temp	80.00	deg F		
Equipment / Base	13042	---		
Recorded By	Jose Ramon Del Villar Chi			
Witnessed By	Keith Ahee			
Rig Name	Weisinger Rig No.6			

BOREHOLE RECORD

Last Edited: 15-NOV-2014 11:10

Bit Size (inches)	Depth From (feet)	Depth To (feet)
9.875	0.00	700.00

REMARKS

HEADER PAGE ONLY

1) Software Version Used 14.05.5280
2) Service Order 6281-103263376
3) Tools Run: MAI, MPD, MDN, MFE, SGS, MCG, SHA, MTA, CBH
4) Hardware:
   MAI: 5 Inch Stand Off, Pumpkin
   MDN: Dual Neutron Bowspring Used
5) 2.65 g/cc Matrix Density used to calculate porosities
6) RWA Calculated using A=0.62, M=2.15
7) All intervals and scales logged as per customer request
8) Annular volume not calculated as per customer request
9) CREW:
   M. Green - OPERATOR
   Q. Blake - OPERATOR

November 15, 2014

Mr. Michael Weisinger
Weisinger Incorporated
2200 E. Davis
Conroe, TX 77301

Re: Interpretation of City of League City – South Shore Harbour Water Well

On November 15, 2014, Weatherford Wireline logged the above mentioned well in Galveston County, Texas. The logging instruments run were an Induction Resistivity, a Density Neutron gas indicator and a Spectral Gamma Ray. Following is an interpretation of the logs.

Gas indications between 192’ to 208’ and 86’ to 92’ are invalid and due to density pad loss because of hole rugosity. See caliper log through these intervals.

The induction log shows water bearing sands between 80’ and 651’.

No elevated readings of uranium are detected in the logged interval.

Regards,

Bill Conchewski

Weatherford International Ltd.
15710 JFK Blvd., Suite 700
Houston, Texas 77032
USA

+1.281.260.5626 Direct
+1.281.260.5630 Fax

www.weatherford.com

Logld:511740

3G

OIL & GAS
WELL / TEST HOLE

Rosalind

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

Induction-Electrical Log

COUNTY GALVESTON
FIELD or LOCATION WILDCAT
WELL #1 ROSALIND R. SAMSTAG ET AL UNIT #1
COMPANY WESLEY WEST & SOUTHERN MINERALS CORP.

COMPANY WESLEY WEST & SOUTHERN MINERALS OR CORPORATION

WELL #1 ROSALIND R. SAMSTAG ET AL UNIT #1

FIELD WILDCAT

LOCATION

COUNTY GALVESTON

STATE TEXAS

Other Surveys

Location of Well
1-1/4 mi SW/Kemah, 40-ac lse, Miguel Muldoon 2 Leagues A-18, Jarboe Addn, Blk 6, Lot 10, 495' FNEL Lot 10 & 770' FNWL Lot*

Elevation: D.F.: 31.0
K.B.:
or G.L.: 19.0

FILING No. SG-55

RUN No.	ONE(ES)	TWO(IES)	THREE(IES)	FOUR	FIVE
Date	7-20-59	8-13-59	8-18-59		
First Reading	2842	9595	10245		
Last Reading	100	2827	9595		
Feet Measured	2742	6768	650		
Csg. Schlum.	----	2827	2827		
Csg. Driller	40	2826	2826		
Depth Reached	2843	9601	10251		
Bottom Driller	2845	9600	10250		
Depth Datum	K.B. 14.50' ABOVE B.H.				
Mud Nat.	NATIVE	LIME BASE	LIME BASE		
Dens. | Visc.	9.7 | 37	12.8 | 52	12.8 | 52		
Mud Resist.	2.6@ 92°F	.53@100°F	.60@ 98°F	@ °F	@ °F
" Res. BHT	1.8@120°F	.28@180°F	.31@185°F	@ °F	@ °F
Rmf	--@---°F	.35@100°F	.43@ 80°F	@ °F	@ °F
Rmc	--@---°F	.25@100°F	.2@ 80°F	@ °F	@ °F
" pH	8.5@ °F	13.0@ °F	13.0@ °F	@ °F	@ °F
" Wtr. loss	14.2 CC30 min.	3.0 CC30 min.	3.5 CC30 min.	CC30 min.	CC30 min.
Bit Size	15"	9-7/8"	9-7/8"		
Spcgs.—	AM 16"	AM 16"	AM 16"		
	AM' 64"	IND 40"	IND 40"		
	AO 18'8"	MN 27'2"	MN 27'2"		
Opr. Rig Time	1-1/2 HRS	HOURS	2 HOURS		
Truck No.	2780 BNH	1584 HO	2529 WHA		
Recorded By	KENDRICK	HOLLY	KRAUSE		
Witness	FORD	WALLA	WALLA		

FOLD HERE

	RUN #1	RUN #2	RUN #3	RUN #4	RUN #5
Cartridge No.		IRO-C-193	IRO-C-433		
Panel No.	ES LOG	IRP-B-24	IRP-B-34		
Sonde No.		IRS-C-218	IRS-C-279 CI 6"		

REMARKS *LOCATION CON'T. B.sc: Fr cor com to SEL Sur & RR Track, go SW alg Sur line 4100', th WORA 2600' to loc.
RUN #1-Rm FROM MEASUREMENT OF FLOW LINE SAMPLE.
RUN #2 & #3-Rm FROM MEASUREMENT OF MUD PIT SAMPLE.
RUN #2 & #3-Rmf & Rmc FROM MEASUREMENT OF BAROID FILTER PRESS SAMPLES

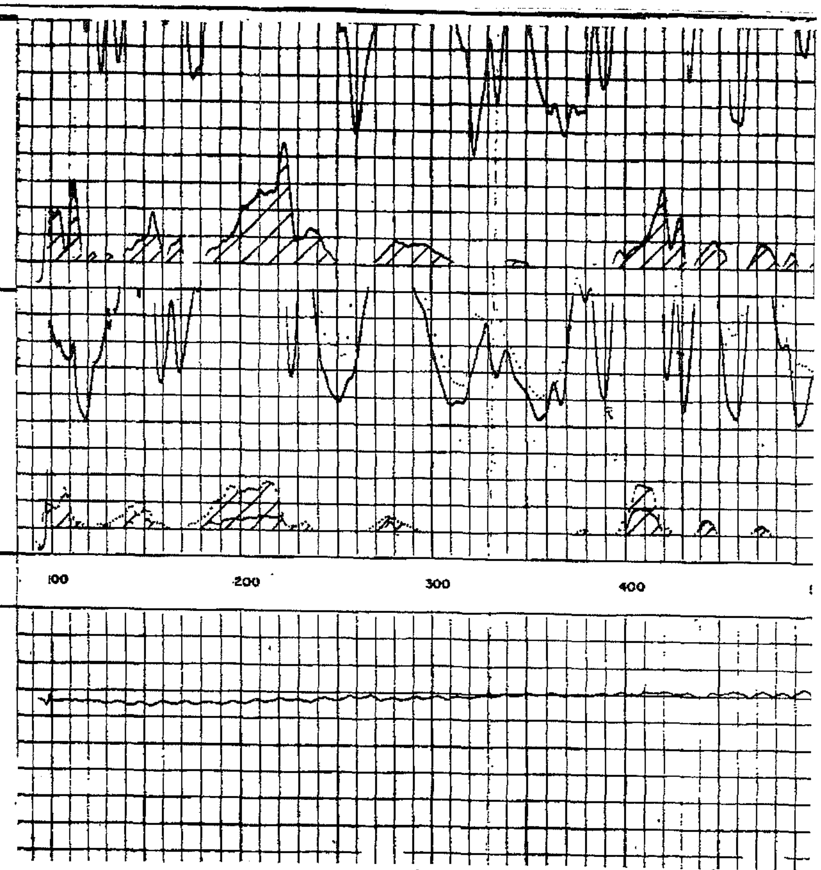
2" = 100'

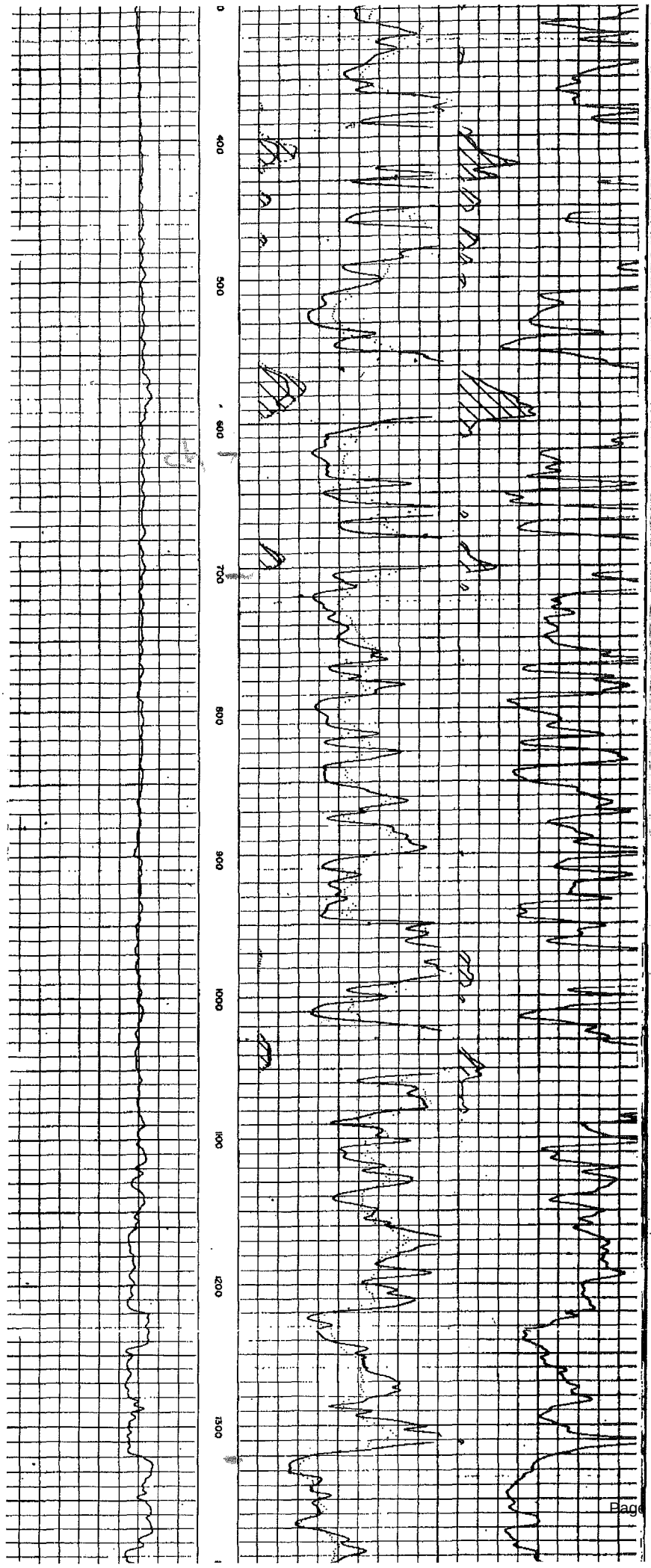
SPONTANEOUS-POTENTIAL millivolts

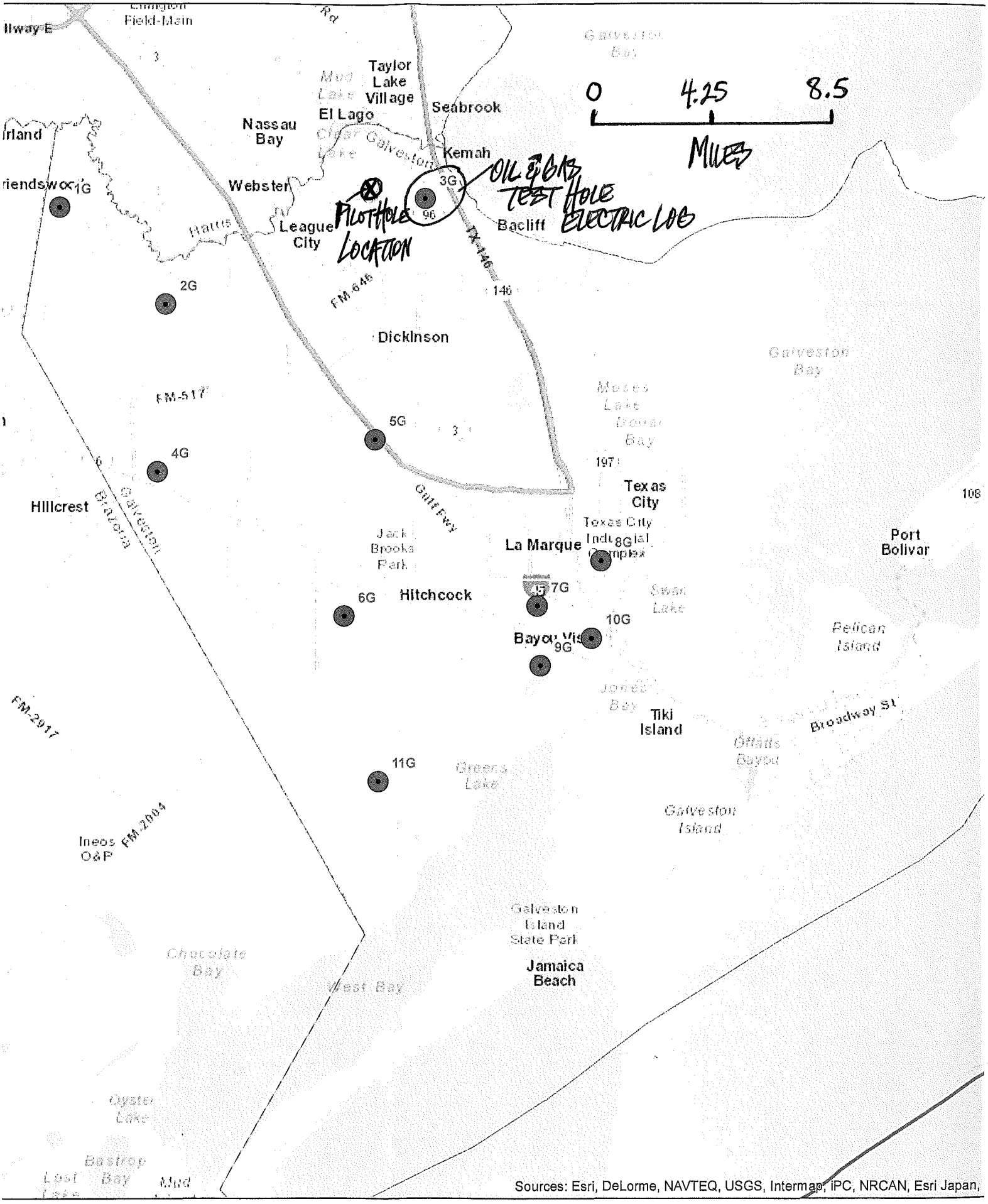
DEPTHS

RESISTIVITY -ohms. m²/m
0 AMP. AM = 16" 2
0 AM = 16" 10
0 AM = 16" 100
0 AM' = 64" 10
0 AM' = 64" 100

RESISTIVITY -ohms. m²/m
0 AO = 18'8" 10
0 AO = 18'8" 100







Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan,

LBG-GUYTON ASSOCIATES
MEMORANDUM

TO: MICHAEL WEISINGER, WEISINGER INCORPORATED

FROM: W. JOHN SEIFERT, JR., P.E.

SUBJECT: CITY OF LEAGUE CITY SOUTH SHORE HARBOUR PRODUCTION WELL

DATE: JANUARY 6, 2015

The following provides information regarding our review of the pilot hole and water sampling data for the above referenced well. The well pilot hole was drilled to a depth of 700 feet and an array induction, spectral gamma ray, and density neutron gamma ray logs were run in the open hole extending from a depth of 50 to 700 feet. The logging was performed by Weatherford. Review of the density neutron gamma ray log does not show any depth intervals that indicate the presence of natural gas. This is based on evaluation of the neutron porosity log trace and the density porosity log trace, which do not cross, except occasionally above a depth of 250 feet where some pilot hole wash out occurs resulting in fault neutron and density porosity crossover. The array induction log indicates potential sands that might be screened in a well below a depth of about 440 feet and extending to a depth of about 656 feet. The sand intervals that could be considered for screening in a well are interbedded with clay strata that can be as much as about 50 feet thick.

WATER SAMPLING

Water samples using the gravel up method were collected from the depths of 560 to 580 feet and 440 to 460 feet. The deeper interval was pumped at a rate of about 304 gpm and a shallower interval at a rate of about 119 gpm. Water samples were collected for chemical and radiological analysis. The results of analyses for the depth interval from 560 to 580 feet showed the water to be of good quality with the exception of the iron content, which was 2.06 mg/l and the Secondary Standard is 0.030 mg/l and the aluminum content, which was 3.57 mg/l and the standard is 0.05 to 0.2 mg/l. The dissolved aluminum level was 0.099 mg/l. Dissolved aluminum is based on analyzing water that has been filtered through an about 45 micron filter. It is a better indicator of the aluminum content in the water. The turbidity of the water measured in the laboratory was 10.4 NTU, which is a higher turbidity than would be measured at the well after well construction and thorough development of the screen section. With a higher turbidity it

is not uncommon for the iron and total aluminum contents to be elevated, as is the case with this sample. When the production well is constructed and the well is thoroughly developed, we estimate that the level of iron and aluminum will decline to below their Secondary Limits.

The water sampling in the 440 to 460 foot depth interval showed a turbidity of 2.1 NTU, color of 21.5 and total aluminum of 0.323 mg/l and dissolved aluminum of <0.005 mg/l. The total aluminum content is slightly elevated over the standard of 0.05 to 0.20 mg/l and the color is slightly elevated above the recommended level of 15. The turbidity is slightly elevated, which most likely is the cause of the total aluminum being elevated. It is not uncommon with a turbidity level as measured to see a color level that is above the Standard. It is believed, assuming this interval is screened in the well, that with proper well construction and thorough development, that the levels of the color, turbidity and total aluminum will decline to below the required standards.

WELL CONTRUCTION

The contractor is recommending a well that would screen sands in the depth interval from about 440 to 656 feet. There are approximately 106 feet of screen that would be set in the depth interval. Also it is recommended that the screen slot opening be 0.025 inches and that the gravel pack be composed of a grade 12 x 20. We concur with the contractor's recommendations regarding the material settings, screen slot opening and grading of the gravel pack.

The Alta Loma Sand does not exist at the well site, thus there is not one continuous, massive sand for screening in the well. Considering the sands that are available for screening, we estimated that it should be highly probably (90 percent) to construct a well that would provide up to about 1,200 gpm. This assumes proper well construction and very thorough well development. Because there is less sand screened in the well, there is the likelihood that the well specific capacity will be not as high as it would be if the Alta Loma Sands were available. We recommend that the City increase the casing size from 20 to 24 inches and the screen and blank liner size from 14 to 18 inches. This will provide a larger diameter screen and blank liner section in which to set a 12-inch diameter pump to a deeper depth, if needed, considering the potential lower specific capacity of the well and corresponding greater drawdown while pumping at a higher rate. Based on information you have provided, the cost to increase the size of the well is modest and would provide the City additional flexibility presently and in the future, as the well is utilized for decades. Copies of the proposed material settings for either 24-inch diameter or 20-inch diameter casing are attached.

If you have questions concerning any of the above, please do not hesitate to contact us.

SUBMITTAL RESPONSE FORM

	SUBMITTAL NO.:	D-13500-002-A	
PROJECT NAME:	**South Shore Harbour Booster Pump Station Improvements**		
OWNER:	City of League City, TX	***PROJECT NUMBER***	5000-103966
CITY CIP:		***DATE OF SUBMITTAL:***	December 19, 2014
REVIEWING CONSULTANT	CDM Smith, Inc. – Process Mechanical		
CONTRACTOR:	CDM Constructors, Inc.	***SPEC NO.***	13500
DESCRIPTION	Gravel Packed Water Well – Water Quality Data		
MANUFACTURER/SUPPLIER	Weisinger Incorporated – LBG Guyton (consulting hydrologist)		

- ☐ APPROVED
- ☐ APPROVED AS NOTED/CONFIRM
- ☐ ACKNOWLEDGE RECEIPT
- ☐ APPROVED AS NOTED
- ☐ APPROVED AS NOTED - RESUBMIT
- ☒ REJECTED – RESUBMIT

Comments: REJECTED – REVISE AND RESUBMIT

1. **Zone 560 to 580 feet (sampled on 8 Dec 2014):**
   a. The volume of water removed (about 220,000 gallons), the turbidity at the time of sampling (< 5 NTUs) and the water quality parameters measured at the time of sampling (pH, conductivity, and temperature within 10% of previous readings) indicate the water sample collected was formation water vs. water introduced into the borehole during drilling.
   b. Compounds with concentrations above regulatory standards include the following:
      i. Total Iron at 2.060 mg/L = The secondary standard is 0.30 mg/L.
      ii. Total Aluminum at 3.570 mg/L and Dissolved Aluminum at 0.099 mg/L = The secondary standard is 0.05 to 0.02 mg/L.
      iii. Langelier Index of +0.02 = Indicates well could scale (see explanation below in #3.c).
2. **Zone 440 to 460 feet (sampled on 10 Dec 2014):**
   a. The volume of water removed (about 105,000 gallons), the turbidity at the time of sampling (< 5 NTUs) and the water quality parameters measured at the time of sampling (pH, conductivity, and temperature within 10% of previous readings) indicate the water sample collected was formation water vs. water introduced into the borehole during drilling.
   b. Compounds with concentrations above regulatory standards include the following:

i. Color at 21.8 color units = The secondary standard for color is 15 color units.

3. Comments/Observations:

a. Secondary standards relate to the appearance and the aesthetics of the water vs. health standards. So although the compounds with concentrations of potential concern listed above do not pose a health threat, TCEQ enforces the secondary MCLs so treatment would be required to reduce values to below the SMCL.

b. The iron and aluminum concentrations of concern listed above for the 560 to 580 foot zone could possibly go down to levels below the secondary standard with further development of the well / blending of the different screen intervals. This assumption would also apply (with a bit less certainty) to color listed above for the 440 to 460 foot zone.

c. The Lagelier Index provides an estimate for the tendency of minerals to precipitate. Water with a value greater than 0 can precipitate scale, water with a value greater than 1 are likely to precipitate scale.

4. Summary:

a. Good samples were collected for the purposes of well design at both sample intervals.

b. Will need to have another conference call to discuss with the well driller and LBG Guyton to further discuss the results of this well versus other wells in the area and expected improvement if developed.

Approved By: Brent W. Nicholas, P.E. TX PE 83349 Date: 12-29-14 December 29, 2014

CDM Constructors Inc.
3050 Post Oak Blvd
Suite 300
Houston, TX 77056
Phone: 713-423-7300
Fax: 713-840-0173

SUBMITTAL
NO. D-13500-002
PACKAGE NO: 13500

TITLE:	Gravel Wall Water Well	**REQUIRED START:**	01/01/15
PROJECT:	League City South Shore Harbour BPS	**REQUIRED FINISH:**	11/26/14
DRAWING:		**DAYS HELD:**	0
STATUS:	NEW	**DAYS ELAPSED:**	1
BIC:		**DAYS OVERDUE:**	23

RECEIVED FROM		SENT TO		RETURNED BY	FORWARDED TO
WEI	MW	CDM	BN		

Revision No.	Description / Remarks	Received	Sent	Returned	Forwarded	Status	Sepias	Prints	Drawing Date	Held	Elapsed
A		12/18/14	12/19/14			NEW	0	0		0	1

SUBCONTRACTOR'S / VENDOR'S COMMENTS: (MW)
Please see attached water quality data as well as the pumping test data for the two test well samples. Thanks.

CCI'S COMMENTS: (DS)
Please review and advise.

1.04 SUBMITTALS
A. Submittals shall comply with the requirements of Section 01330 – Submittal Procedures.
(See attached.)

B. Submit shop drawings on all components of well.
(This section will be in a separate submittal that will include remaining sections of this specification section.)

C. Submit the following:

1. Pilot Hole Reports;
(See D-13500-001)

2. Electric Log;
(See D-13500-001)

3. Bacteriological results;
(See Attached.)

4. Chemical sample result;
(See Attached.)

5. 36-hour pump tests;
(This section will be in a separate submittal that will include remaining sections of this specification section.)

6. Pump manufacturer's data;
(This section will be in a separate submittal D-11215-001-A)

7. Equipment operation manuals;
(This section will be in a separate submittal that will include remaining sections of this specification section.)

8. Cementing Certificate;
(This section will be in a separate submittal that will include remaining sections of this specification section.)

CDM Constructors Inc.
3050 Post Oak Blvd
Suite 300
Houston, TX 77056
Phone: 713-423-7300
Fax: 713-840-0173

SUBMITTAL
NO. D-13500-002
PACKAGE NO: 13500

TITLE:	Gravel Wall Water Well	**REQUIRED START:**	01/01/15
PROJECT:	League City South Shore Harbour BPS	**REQUIRED FINISH:**	11/26/14
DRAWING:		**DAYS HELD:**	0
STATUS:	NEW	**DAYS ELAPSED:**	1
BIC:		**DAYS OVERDUE:**	23

RECEIVED FROM		SENT TO		RETURNED BY	FORWARDED TO
WEI	MW	CDM	BN		

Revision No.	Description / Remarks	Received	Sent	Returned	Forwarded	Status	Sepias	Prints	Drawing Date	Held	Elapsed

9. Welder's certificates;
(This section will be in a separate submittal that will include remaining sections of this specification section.)

10. Gravel samples;
(This section will be in a separate submittal that will include remaining sections of this specification section.)

11. DVD video of well casing and well screen
(This section will be in a separate submittal that will include remaining sections of this specification section.)

2.01 MATERIALS
(This section will be in a separate submittal that will include remaining sections of this specification section.)

Weisinger Incorporated
P. O. Box 2848,Conroe, Texas 77305

FIELD PERFORMANCE DATA

936-756-7721 Office
936-756-7723 Fax

WELL OWNER	WELL NAME / NUMBER	WELL LOCATION / STATE WELL NUMBER	
City of League City	South Shore Harbour	2800 FM 518 East League City, Texas	
MEASURING POINT (MP) & HEIGHT	PUMP MANUFACTURER / BOWL DATA	PUMP SETTING	COLUMN / SHAFT / TUBING
Orifice Manometer	6" Submersible	500 ft.	3"
MOTOR SIZE/SPEED	FLOW & WATER-LEVEL MEASURING EQUIPMENT	TESTING PERSONNEL	
40 HP	4" x 3" Orifice & E-Line	S. Covarrubias & Crew/R.Peeples & Crew	

12/8/2014	Orifice	Well	Static	Pumping			Field		
	Manometer	Pumping	Water	Water	Temp	PH	Turbidity	Conductivity	** Pilot Hole Sample Test #1 (560 - 580 ft.) **
DATE &	Reading	Rate	Level	Level					
TIME	(inches)	(gpm)	(feet)	(feet)			(NTU)	(PCU)	Remarks & Notes
5:00 AM			117.30						
5:05 AM	59.5	305.0		233.85			120		
5:10 AM	59	304.0		241.85					
5:15 AM	59	304.0		242.00			60.1		Cloudy/No Sand
5:20 AM	59	304.0		242.30					Cloudy/No Sand
5:25 AM	59	304.0		242.35			39.7		Clear/No Sand
5:30 AM	59	304.0		242.45					Clear/No Sand
5:40 AM	59	304.0		242.50			30		Clear/No Sand
5:50 AM	59	304.0		242.45			28		Clear/No Sand
6:00 AM	59	304.0		242.34			23		Clear/No Sand
6:15 AM	59	304.0		242.28			22.2		Clear/No Sand
6:30 AM	59	304.0		242.25			19.1		Clear/No Sand
6:45 AM	59	304.0		242.22			16.1		Clear/No Sand
7:00 AM	59	304.0		242.18			14.8		Clear/No Sand
7:15 AM	59	304.0		242.20			16.4		Clear/No Sand
7:30 AM	59	304.0		242.12			11.5		Clear/No Sand
7:45 AM	59	304.0		242.14			10.6		Clear/No Sand
8:00 AM	59	304.0		242.16			9.32		Clear/No Sand
8:15 AM	59	304.0		242.20			8.95		Clear/No Sand
8:30 AM	59	304.0		242.15			7.47		Clear/No Sand
8:45 AM	59	304.0		242.50			5.72		Clear/No Sand
9:00 AM	59	304.0		242.28			5.3		Clear/No Sand
9:15 AM	59	304.0		242.14			3.73		Clear/No Sand
9:30 AM	59	304.0		242.25			5.36		Clear/No Sand
9:45 AM	59	304.0		242.16			5.77		Clear/No Sand

Weisinger Incorporated
P. O. Box 2848,Conroe, Texas 77305

FIELD PERFORMANCE DATA

936-756-7721 Office
936-756-7723 Fax

WELL OWNER	WELL NAME / NUMBER	WELL LOCATION / STATE WELL NUMBER	
City of League City	South Shore Harbour	2800 FM 518 East League City, Texas	
MEASURING POINT (MP) & HEIGHT	PUMP MANUFACTURER / BOWL DATA	PUMP SETTING	COLUMN / SHAFT / TUBING
Orifice Manometer	6" Submersible	500 ft.	3"
MOTOR SIZE/SPEED	FLOW & WATER-LEVEL MEASURING EQUIPMENT	TESTING PERSONNEL	
40 HP	4" x 3" Orifice & E-Line	S. Covarrubias & Crew/R.Peeples & Crew	

12/8/2014	Orifice	Well	Static	Pumping			Field		
	Manometer	Pumping	Water	Water	Temp	PH	Turbidity	Conductivity	** Pilot Hole Sample Test #1 (560 - 580 ft.) **
DATE &	Reading	Rate	Level	Level					
TIME	(inches)	(gpm)	(feet)	(feet)			(NTU)	(PCU)	Remarks & Notes
10:00 AM	59	304.0		242.12			4.69		Clear/No Sand
10:15 AM	59	304.0		242.21			5.36		Clear/No Sand
10:30 AM	59	304.0		242.20			5.69		Clear/No Sand
10:45 AM	59	304.0		242.23			4.3		Clear/No Sand
11:00 AM	59	304.0		242.26			4.02		Clear/No Sand
11:15 AM	59	304.0		242.24			3.54		Clear/No Sand
11:30 AM	59	304.0		242.28			4.08		Clear/No Sand
11:45 AM	59	304.0		242.15			5.85		Clear/No Sand
12:00 PM	59	304.0		242.22			7.35		Clear/No Sand
12:15 PM	59	304.0		242.30			7.98		Clear/No Sand
12:30 PM	59	304.0		242.32			7.41		Clear/No Sand
12:45 PM	59	304.0		242.26	7.45	1012	7.53	25.4	Clear/No Sand
1:00 PM	59	304.0		242.28	7.48	1012	9.5	26.9	Clear/No Sand
1:15 PM	59	304.0		242.53	7.48	989	16.7	24.8	Clear/No Sand
1:30 PM	59	304.0		242.62	7.47	978	17.8	24.2	Clear/No Sand
1:45 PM	59	304.0		242.42	7.47	982	17	24.5	Clear/No Sand
2:00 PM	59	304.0		242.43	7.56	982	16.7	24.9	Clear/No Sand
2:15 PM	59	304.0		242.35	7.59	1001	16.6	25.2	Clear/No Sand
2:30 PM	59	304.0		242.46	7.58	1000	13.2	25.1	Clear/No Sand
2:45 PM	59	304.0		242.45	7.61	984	9.22	24.7	Clear/No Sand
3:00 PM	59	304.0		242.65	7.57	997	10.3	24.9	Clear/No Sand
3:15 PM	59	304.0		242.75	7.58	990	7.28	24.9	Clear/No Sand
3:30 PM	59	304.0		242.60	7.55	991	6.26	25	Clear/No Sand
3:45 PM	59	304.0		242.58	7.54	982	7.02	24.5	Clear/No Sand
4:00 PM	59	304.0		242.50	7.54	978	5.47	24.5	Clear/No Sand
4:15 PM	59	304.0		242.70	7.49	964	2.79	23.8	Clear/No Sand
4:30 PM	59	304.0		242.80	7.47	960	2.78	23.4	Clear/No Sand

Weisinger Incorporated
P. O. Box 2848,Conroe, Texas 77305

FIELD PERFORMANCE DATA

936-756-7721 Office
936-756-7723 Fax

WELL OWNER	WELL NAME / NUMBER	WELL LOCATION / STATE WELL NUMBER	
City of League City	South Shore Harbour	2800 FM 518 East League City, Texas	
MEASURING POINT (MP) & HEIGHT	PUMP MANUFACTURER / BOWL DATA	PUMP SETTING	COLUMN / SHAFT / TUBING
Orifice Manometer	6" Submersible	500 ft.	3"
MOTOR SIZE/SPEED	FLOW & WATER-LEVEL MEASURING EQUIPMENT	TESTING PERSONNEL	
40 HP	4" x 3" Orifice & E-Line	S. Covarrubias & Crew/R.Peeples & Crew	

12/8/2014	Orifice	Well	Static	Pumping			Field		
	Manometer	Pumping	Water	Water	Temp	PH	Turbidity	Conductivity	** Pilot Hole Sample Test #1 (560 - 580 ft.) **
DATE &	Reading	Rate	Level	Level					
TIME	(inches)	(gpm)	(feet)	(feet)			(NTU)	(PCU)	Remarks & Notes
4:45 PM	59	304.0		242.82	7.45	964	3.2	23.1	Clear/No Sand
5:00 PM	59	304.0		242.80	7.46	960	2.27	23.1	End of Pump Test
5:05 PM			130.85						
5:10 PM			129.72						
5:15 PM			127.34						

Weisinger Incorporated
P. O. Box 2848,Conroe, Texas 77305

FIELD PERFORMANCE DATA

936-756-7721 Office
936-756-7723 Fax

WELL OWNER	WELL NAME / NUMBER	WELL LOCATION / STATE WELL NUMBER	
City of League City	South Shore Harbour	2800 FM 518 East League City, Texas	
MEASURING POINT (MP) & HEIGHT	PUMP MANUFACTURER / BOWL DATA	PUMP SETTING	COLUMN / SHAFT / TUBING
Orifice Manometer	6" Submersible	420 ft.	3"
MOTOR SIZE/SPEED	FLOW & WATER-LEVEL MEASURING EQUIPMENT	TESTING PERSONNEL	
40 HP	4" x 3" Orifice & E-Line	S. Covarrubias & Crew/N.Prieto & Crew	

12/9/2014	Orifice	Well	Static	Pumping			Field		
	Manometer	Pumping	Water	Water	Temp	PH	Turbidity	Conductivity	** Pilot Hole Sample Test #2 (440 - 460 ft.) **
DATE &	Reading	Rate	Level	Level					
TIME	(inches)	(gpm)	(feet)	(feet)			(NTU)	(PCU)	Remarks & Notes
6:00 PM			134.25						
6:05 PM	9.5	122.0		367.07	751	1024		21.1	Cloudy/No Sand
6:10 PM	9.5	122.0		357.22					Cloudy/No Sand
6:15 PM	9.5	122.0		359.40			266		Cloudy/No Sand
6:20 PM	9.5	122.0		360.15					Cloudy/No Sand
6:25 PM	9	119.0		362.02					Cloudy/No Sand
6:30 PM	9	119.0		362.59			155		Cloudy/No Sand
6:40 PM	9	119.0		364.31			112		Cloudy/No Sand
6:50 PM	9	119.0		365.14					Cloudy/No Sand
7:00 PM	9	119.0		365.89	757	1020	112	23.9	Cloudy/No Sand
7:15 PM	9	119.0		368.70			93.2		Cloudy/No Sand
7:30 PM	9	119.0		370.66			85		Cloudy/No Sand
7:45 PM	9	119.0		372.29			81		Cloudy/No Sand
8:00 PM	9	119.0		373.43	743	1005	78.8	22.5	Cloudy/No Sand
8:15 PM	9	119.0		375.46			77.5		Cloudy/No Sand
8:30 PM	9	119.0		376.24			90.1		Cloudy/No Sand
8:45 PM	9	119.0		377.52			77.7		Cloudy/No Sand
9:00 PM	9	119.0		378.35	742	1006	68.9	22.3	Cloudy/No Sand
9:15 PM	9	119.0		379.59			69.9		Cloudy/No Sand
9:30 PM	9	119.0		380.30			71.6		Cloudy/No Sand
9:45 PM	9	119.0		381.50			71.8		Cloudy/No Sand
10:00 PM	9	119.0		382.04	739	1002	68.2	21.9	Cloudy/No Sand
10:15 PM	9	119.0		383.11			72.3		Cloudy/No Sand
10:30 PM	9	119.0		383.45			70.9		Cloudy/No Sand
10:45 PM	9	119.0		384.83			68.6		Cloudy/No Sand

Weisinger Incorporated
P. O. Box 2848,Conroe, Texas 77305

FIELD PERFORMANCE DATA

936-756-7721 Office
936-756-7723 Fax

WELL OWNER	WELL NAME / NUMBER	WELL LOCATION / STATE WELL NUMBER	
City of League City	South Shore Harbour	2800 FM 518 East League City, Texas	
MEASURING POINT (MP) & HEIGHT	PUMP MANUFACTURER / BOWL DATA	PUMP SETTING	COLUMN / SHAFT / TUBING
Orifice Manometer	6" Submersible	420 ft.	3"
MOTOR SIZE/SPEED	FLOW & WATER-LEVEL MEASURING EQUIPMENT	TESTING PERSONNEL	
40 HP	4" x 3" Orifice & E-Line	S. Covarrubias & Crew/N.Prieto & Crew	

12/9/2014	Orifice	Well	Static	Pumping			Field		
	Manometer	Pumping	Water	Water	Temp	PH	Turbidity	Conductivity	** Pilot Hole Sample Test #2 (440 - 460 ft.) **
DATE &	Reading	Rate	Level	Level					
TIME	(inches)	(gpm)	(feet)	(feet)			(NTU)	(PCU)	Remarks & Notes
11:00 PM	9	119.0		385.36	7.4	1002	66.6	22.1	Cloudy/No Sand
11:15 PM	8.5	115.0		386.13			64		Cloudy/No Sand
11:30 PM	8.5	115.0		386.40			60.9		Cloudy/No Sand
11:45 PM	8.5	115.0		387.07			52.7		Cloudy/No Sand
12:00 AM	8.5	115.0		387.73	7.19	1027	59.6	23.5	Cloudy/No Sand
12:15 AM	8.5	115.0		388.29			54		Cloudy/No Sand
12:30 AM	8.5	115.0		389.20			48.5		Cloudy/No Sand
12:45 AM	8.5	115.0		389.98			45.7		Cloudy/No Sand
1:00 AM	8.5	115.0		389.95	7.25	1010	48.5	22.2	Cloudy/No Sand
1:15 AM	8.5	115.0		391.00			49.8		Cloudy/No Sand
1:30 AM	8.5	115.0		391.80			53.3		Cloudy/No Sand
1:45 AM	8.5	115.0		392.45			51.6		Cloudy/No Sand
2:00 AM	8.5	115.0		392.52	7.26	1008	50.4	21.9	Cloudy/No Sand
2:15 AM	8.5	115.0		392.83			45.9		Clear/No Sand
2:30 AM	8.5	115.0		393.65			40.8		Clear/No Sand
2:45 AM	8.5	115.0		393.68			31.6		Clear/No Sand
3:00 AM	8.5	115.0		394.06	7.33	1019	21.2	23	Clear/No Sand
3:15 AM	8.5	115.0		394.33			20.4		Clear/No Sand
3:30 AM	8.5	115.0		395.20			15.8		Clear/No Sand
3:45 AM	8.5	115.0		395.57			15.4		Clear/No Sand
4:00 AM	8.5	115.0		395.82	7.35	1018	11.6	22.9	Clear/No Sand
4:15 AM	8.5	115.0		396.27			11.3		Clear/No Sand
4:30 AM	8.5	115.0		396.29			8.47		Clear/No Sand
4:45 AM	8.5	115.0		396.51			8.28		Clear/No Sand
5:00 AM	8.5	115.0		397.16	7.37	1016	9.4	22.4	Clear/No Sand
5:15 AM	8.5	115.0		397.61			9.86		Clear/No Sand
5:30 AM	8.5	115.0		397.98			9.57		Clear/No Sand

Weisinger Incorporated
P. O. Box 2848,Conroe, Texas 77305

FIELD PERFORMANCE DATA

936-756-7721 Office
936-756-7723 Fax

WELL OWNER	WELL NAME / NUMBER	WELL LOCATION / STATE WELL NUMBER	
City of League City	South Shore Harbour	2800 FM 518 East League City, Texas	
MEASURING POINT (MP) & HEIGHT	PUMP MANUFACTURER / BOWL DATA	PUMP SETTING	COLUMN / SHAFT / TUBING
Orifice Manometer	6" Submersible	420 ft.	3"
MOTOR SIZE/SPEED	FLOW & WATER-LEVEL MEASURING EQUIPMENT	TESTING PERSONNEL	
40 HP	4" x 3" Orifice & E-Line	S. Covarrubias & Crew/N.Prieto & Crew	

12/9/2014	Orifice	Well	Static	Pumping			Field		
	Manometer	Pumping	Water	Water	Temp	PH	Turbidity	Conductivity	** Pilot Hole Sample Test #2 (440 - 460 ft.) **
DATE &	Reading	Rate	Level	Level					
TIME	(inches)	(gpm)	(feet)	(feet)			(NTU)	(PCU)	Remarks & Notes
5:45 AM	8.5	115.0		398.42			9.62		Clear/No Sand
6:00 AM	8.5	115.0		398.60	7.4	1030	10.8	23.4	Clear/No Sand
6:15 AM	8.5	115.0		398.75			11		Clear/No Sand
6:30 AM	8.5	115.0		398.90			8.01		Clear/No Sand
6:45 AM	8.5	115.0		399.35			7.11		Clear/No Sand
7:00 AM	8.5	115.0		400.02	7.32	1025	6.3	22.3	Clear/No Sand
7:15 AM	8.5	115.0		400.34			6.12		Clear/No Sand
7:30 AM	8.5	115.0		400.52			6.15		Clear/No Sand
7:45 AM	8.5	115.0		400.84			3.63		Clear/No Sand
8:00 AM	8.5	115.0		401.22	7.32	1004	3.29	22.4	Clear/No Sand
8:15 AM	8.5	115.0		401.40			3.55		Clear/No Sand
8:30 AM	8.5	115.0		401.71			3.71		Clear/No Sand
8:45 AM	8.5	115.0		401.65			2.99		Clear/No Sand
9:00 AM	8.5	115.0			7.43	1043	3.15	24.1	Clear/No Sand
9:10 AM							3.21		Clear/No Sand
9:20 AM							2.79		End of Pump Test
9:25 AM			223.17						Start Recovery
9:30 AM			211.80						
9:35 AM			204.78						
9:40 AM			200.04						
9:45 AM			197.73						
9:50 AM			195.14						
10:00 AM			191.54						
10:10 AM			188.35						
10:20 AM			186.50						

ENVIRODYNE LABORATORIES INC

CERTIFICATE OF ANALYSIS

CLIENT:	**City of League City- South Shore Harbour** (Weisinger Inc.)	LAB NUMBER:	14L0883A
DATE COLLECTED:	08-Dec-14	DATE RECEIVED:	08-Dec-14
DATE COMPLETED:	15-Dec-14	SAMPLED BY:	CN

LOCATION:	**WELL- 560'-580 @ 1420**		
PARAMETERS:		EPA METHOD #	LIMITS (mg/l)
pH (Units)	8.40	SM 4500-H B	6.50 - 8.50
TOTAL HARDNESS as CaCO3(mg/l)	36.5	SM 2340 C	N/A
TOTAL ALKALINITY as CaCO3 (mg/l)	300.0	SM 2320 B	N/A
P. ALKALINITY as CaCO3 (mg/l)	<20.0	SM 2320 B	N/A
BICARBONATE (mg/l)	360.0	N/A	N/A
CARBONATE (mg/l)	<1.0	N/A	N/A
TOTAL DISSOLVED SOLIDS (mg/l)	518.0	SM 2540 C	1,000.0
CONDUCTANCE (umhos/cm)	885.0	SM 2510 B	N/A
FREE CO2 (mg/l)	2.5	N/A	N/A
CORROSIVITY as Caco3 (mg/l)	< 1.0	305.1	Non-corrosive
SILICA (mg/l)	24.00	SM 4500-SiO2 D	N/A
CALCIUM as CaCO3 (mg/l)	23.8	200.7	N/A
MAGNESIUM as CaCO3 (mg/l)	12.7	200.7	N/A
FOAMING AGENTS (mg/l)	<0.020	N/A	0.5*
COLOR (Units)	7.9	SM 2120 C	15.0
TURBIDITY (Units)	10.4	SM 2130 B	1.0
DISSOLVED TURBIDITY (Units)	0.8	SM 2130 B	1.0
CYANIDE (as Free mg/l)	< 0.02	SM 4500-CN E	0.2
SODIUM (mg/l)	176.0	200.7	N/A
POTASSIUM (mg/l)	2.4	200.7	N/A
TOTAL IRON (mg/l)	2.060	200.7	0.30 *
TOTAL MANGANESE (mg/l)	0.045	200.7	0.05 *
DISSOLVED MANGANESE (mg/l)	0.026	200.7	0.05 *
TOTAL ZINC (mg/l)	0.033	200.7	5.0 *
TOTAL ANTIMONY (mg/l)	<0.005	200.7	0.006
TOTAL ALUMINUM (mg/l)	3.570	200.7	0.05 - 0.20*
DISSOLVED ALUMINUM (mg/l)	0.099	200.7	0.05 - 0.20*
TOTAL ARSENIC (mg/l)	<0.005	200.7	0.01
DISSOLVED ARSENIC (mg/l)	<0.005	200.7	0.01
TOTAL BARIUM (mg/l)	0.137	200.7	1.0
TOTAL BERYLLIUM (mg/l)	<0.001	200.7	0.004
TOTAL COPPER (mg/l)	0.002	200.7	1.00
TOTAL SILVER (mg/l)	<0.005	200.7	0.05
TOTAL NICKEL (mg/l)	<0.005	200.7	0.10
TOTAL CADMIUM (mg/l)	<0.001	200.7	0.010
TOTAL CHROMIUM (mg/l)	<0.005	200.7	0.05
TOTAL LEAD (mg/l)	<0.005	200.7	0.015
TOTAL MERCURY (mg/l)	< 0.0002	245.1	0.002
TOTAL SELENIUM (mg/l)	<0.005	200.7	0.01
TOTAL THALLIUM (mg/l)	<0.001	200.7	0.002
SULFATE (mg/l)	2.10	ASTM D516-90	300.0 *
CHLORIDE (mg/l)	101.0	SM 4500-Cl B	300.0 *
NITRATE (mg/l)	<0.1	SM 4500-NO3 E	10.0
NITRITE (mg/l)	<0.05	SM 4500-NO2 B	1.00
FLUORIDE (mg/l)	1.16	SM 4500-F C	2.00
DISSOLVED FLUORIDE (mg/l)	1.15	SM 4500-F C	2.00
ODOR (THRESHOLD #)	< 1.0	N/A	3.0
TEMPERATURE (C/F)	22/71.6	N/A	N/A
LANGELIER INDEX	+0.02	N/A	N/A
HYDROGEN SULFIDE (mg/l)	<0.05	SM 4500-S D	0.05

* DENOTES: Secondary Standards (Recommended)

CERTIFIED BY

ENVIRODYNE LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: **League City- South Shore Harbour** (Weisinger Inc.)
LAB NUMBER: 14L0883B
DATE COLLECTED: 08-Dec-14
DATE RECEIVED: 08-Dec-14
DATE COMPLETED: 15-Dec-14
SAMPLED BY: CN

LOCATION: / PARAMETERS:	WELL- 560'-580' @ 1420	DETECTION LIMITS (ug/l)
CHLOROMETHANE (ug/l)	1.0 U	1.0
VINYL CHLORIDE (ug/l)	2.0 U	2.0
BROMOMETHANE (ug/l)	1.0 U	1.0
CHLOROETHANE (ug/l)	1.0 U	1.0
TRICHLOROFUOROMETHANE (ug/l)	1.0 U	1.0
1,1-DICHLOROETHENE (ug/l)	1.0 U	1.0
METHYLENE CHLORIDE (ug/l)	1.0 U	1.0
trans-1,2-DICHLOROETHENE (ug/l)	1.0 U	1.0
cis-1,2-DICHLOROETHENE (ug/l)	1.0 U	1.0
1,1-DICHLOROETHANE (ug/l)	1.0 U	1.0
1,1,1-TRICHLOROETHANE (ug/l)	1.0 U	1.0
CHLOROFORM (ug/l)	1.0 U	1.0
CARBON TETRACHLORIDE (ug/l)	1.0 U	1.0
1,2-DICHLOROETHANE (ug/l)	1.0 U	1.0
BENZENE (ug/l)	1.0 U	1.0
TRICHLOROETHENE (ug/l)	1.0 U	1.0
1,2-DICHLOROPROPANE (ug/l)	1.0 U	1.0
BROMODICHLOROMETHANE (ug/l)	1.0 U	1.0
cis-1,3 DICHLOROPROPENE (ug/l)	1.0 U	1.0
TOLUENE (ug/l)	1.0 U	1.0
trans-1,3-DICHLOROPROPENE (ug/l)	1.0 U	1.0
1,1,2-TRICHLOROETHANE (ug/l)	1.0 U	1.0
TETRACHLOROETHENE (ug/l) - (PERC)	1.0 U	1.0
DIBROMOCHLOROMETHANE (ug/l)	1.0 U	1.0
CHLOROBENZENE (ug/l)	1.0 U	1.0
2-CHLOROETHYLVINYL ETHER (ug/l)	5.0 U	5.0
ETHYLBENZENE (ug/l)	1.0 U	1.0
BROMOFORM (ug/l)	1.0 U	1.0
1,1,2,2-TETRACHLOROETHANE (ug/l)	1.0 U	1.0
1,2-DIBROMOETHANE (ug/l)	1.0 U	1.0
XYLENE (ug/l)	1.0 U	1.0
TOTAL TRIHALOMETHANES (ug/l)	1.0 U	1.0
1,2,4-TRICHLOROBENZENE (ug/l)	1.0 U	1.0
DICHLOROMETHANE (ug/l)	1.0 U	1.0
o-DICHLOROBENZENE (ug/l)	1.0 U	1.0
p-DICHLOROBENZENE (ug/l)	1.0 U	1.0

LAB REPRESENTATIVE

Ref. EPA-524 (VOLATILES)
U - Analyte Not Detected at the Listed Detection Limit
J - Analyte Present but Below Detection Limit
Qual: Analyzed by NELAC certified lab T104704218

(281) 568-7880
11011 Brooklet Dr. #230, Houston, TX 77099

ENVIRODYNE ELI LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT **League City- South Shore Harbour** (Weisinger Inc.)
LAB NUMBER: 14L0883C

DATE COLLECTED: 08-Dec-14
DATE RECEIVED: 08-Dec-14

DATE COMPLETED: 15-Dec-14
SAMPLED BY: CN

LOCATION: **WELL- 560'-580'**

PARAMETERS: BNA/Pest.		Maximum Contaminant Levels (MCLs) in ug/l			Maximum Contaminant Levels (MCLs) in ug/l
ATRAZINE (ug/l)	< 1.0	3.0	Alachlor (ug/l)	< 0.02	2
HEXACHLOROBENZENE (ug/l)	< 1.0	1.0	Heptachlor (ug/l)	< 0.03	0.4
HEXACHLOROCYCLOPENTADIENE (ug/l)	< 10.0	50.0	Heptaclor Epoxide (ug/l)	< 0.20	0.2
BENZO (a) PYRENE (ug/l)	< 0.1	0.2	Gamma-BHC (Lindane) (ug/l)	< 0.03	0.2
PENTACHLOROPHENOL (ug/l)	< 1.0	1.0	Chlordane (ug/l)	< 0.14	2
Di (2-ETHYLHEXYL) PHTHALATE (ug/l)	< 5.0	6.0	Toxaphene (ug/l)	< 2.40	3
Di (2-ETHYLHEXYL) ADIPATE (ug/l)	< 100.0	400.0	Methoxychlor (ug/l)	< 0.50	40
Simazine (ug/l)	< 1.0	4.0	Ethylene dibromide (ug/l)	< 0.01	0.05
Endrin (ug/l)	< 0.06	2.0	Glyphosate (ug/l)	< 0.100	700.0
Carbofuran (ug/l)	< 0.04	40.0	Oxamyl (ug/l)	< 100.0	200.0
Dalapon (ug/l)	< 0.20	200.0	Styrene (ug/l)	< 50.0	100.0
Dibromochloropropane (ug/l)	< 0.1	0.2	Picloram (ug/l)	< 100.0	500.0
Dinoseb (ug/l)	< 1.0	7.0	*2,4,5-TP (SILVEX) (ug/l)	< 4.0	50
Diquat (ug/l)	< 10.0	20.0	*2,4-D (ug/l)	< 10.0	70
Endothall (ug/l)	< 50.0	100.0	Total PCBs (mg/l)	< 0.5	0.5

Analyzed by NELAP accredited lab T104704218
Ref. EPA-525.2 (Base/Neutrals & Acids)
U - Analyte Not Detected at the listed Detection Limit
J - Analyte Present but below Detection Limit

LAB REPRESENTATIVE

(281) 568-7880 11011 Brooklet Dr. #230, Houston, TX 77099

EMSL Analytical, Inc.
8700 Jameel Road, Suite 190 Houston, TX 77040
Phone/Fax: (713) 686-3635 / (713) 686-3645
http://www.EMSL.com / houstonlab@emsl.com

EMSL Order ID: 151406584
Customer ID: ENDY62
Customer PO:
Project ID:

Attn: Sherry Walker
Envirodyne Laboratories, Inc.
11011 Brooklet. Suite 230
Houston, TX 77099

Phone: (281) 568-7880
Fax: (281) 568-7880
Collected: 12/08/2014
Received: 12/10/2014
Analyzed: 12/17/2014

Proj: Leauge City South Shore Harbor

Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm^2)	Area Analyzed (mm^2)	ASBESTOS Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
							MFL (million fibers per liter)		
Well 151406584-0001	12/10/2014 01:16 PM	50	1282	0.1386	None Detected	ND	0.18	<0.18	0.00 - 0.68

Analyst(s)
Jason Mote (1)

Michelle Leggett, Laboratory Manager
or Other Approved Signatory

Any questions please contact Michelle Leggett.

Initial report from: 12/17/2014 12:46:29

Sample collection and containers provided by the client, acceptable bottle blank level is defined as ≤0.01MFL>10um. ND=None Detected. This report relates only to those items tested. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Houston, TX NELAC TX T104704379-11-4

DOH Certification #E84025
Cert.# T104704527-14-1

Report Date: December 18, 2014

Envirodyne Laboratories, Inc.
11011 Brooklet, Ste 230
Houston, TX 77099-3547

Field Custody: Client
Client/Field ID: Weisinger
League City South
Shore Harbor/Well
Sample Collection: 12-8-14/1420
Lab ID No: 14.10172
Lab Custody Date: 12-11-14/1045
Sample description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	0.0 ± 2.3	12-17-14/0800	EPA 900.0	2.9
Gross Beta	pCi/l	0.0 ± 1.7	12-17-14/0800	EPA 900.0	3.2
Radium-226	pCi/l	±		EPA 903.0	
Radium-228	pCi/l	0.5 ± 0.7	12-17-14/1437	EPA Ra-05	0.8
Uranium	pCi/l	0.1 ± 0.2	12-17-14/1514	EPA 908.0	0.2
Uranium	ug/l	0.1 ± 0.3	Calc.	EPA 908.0	0.3
Radon-222	pCi/l	53 ± 6	12-12-14/0808	*	3.2

Alpha Standard: Th-230
Beta Standard: Cs-137

*EPA/600/2-87/082 appendix D

James W Hayes

James W. Hayes
Laboratory Manager

Test results meet all requirements of the NELAC standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Jim Hayes (813) 229-2879.

ENVIRODYNE LABORATORIES INC

CERTIFICATE OF ANALYSIS

CLIENT:	**City of League City- South Shore Harbour** (Weisinger Inc.)	LAB NUMBER:	14L1198A
DATE COLLECTED:	10-Dec-14	DATE RECEIVED:	10-Dec-14
DATE COMPLETED:	18-Dec-14	SAMPLED BY:	LKB

LOCATION:	**WELL- 440'-460' @ 0800**		
PARAMETERS:		EPA METHOD #	LIMITS (mg/l)
pH (Units)	8.10	SM 4500-H B	6.50 - 8.50
TOTAL HARDNESS as CaCO3(mg/l)	36.3	SM 2340 C	N/A
TOTAL ALKALINITY as CaCO3 (mg/l)	309.0	SM 2320 B	N/A
P. ALKALINITY as CaCO3 (mg/l)	<20.0	SM 2320 B	N/A
BICARBONATE (mg/l)	358.6	N/A	N/A
CARBONATE (mg/l)	<1.0	N/A	N/A
TOTAL DISSOLVED SOLIDS (mg/l)	530.0	SM 2540 C	1,000.0
CONDUCTANCE (umhos/cm)	943.0	SM 2510 B	N/A
FREE CO2 (mg/l)	6.0	N/A	N/A
CORROSIVITY as Caco3 (mg/l)	< 1.0	305.1	Non-corrosive
SILICA (mg/l)	32.00	SM 4500-SiO2 D	N/A
CALCIUM as CaCO3 (mg/l)	24.0	200.7	N/A
MAGNESIUM as CaCO3 (mg/l)	12.3	200.7	N/A
FOAMING AGENTS (mg/l)	<0.020	N/A	0.5*
COLOR (Units)	21.8	SM 2120 C	15.0
TURBIDITY (Units)	2.1	SM 2130 B	1.0
DISSOLVED TURBIDITY (Units)	0.2	SM 2130 B	1.0
CYANIDE (as Free mg/l)	< 0.02	SM 4500-CN E	0.2
SODIUM (mg/l)	185.0	200.7	N/A
POTASSIUM (mg/l)	<2.0	200.7	N/A
TOTAL IRON (mg/l)	0.204	200.7	0.30 *
TOTAL MANGANESE (mg/l)	0.040	200.7	0.05 *
DISSOLVED MANGANESE (mg/l)	0.035	200.7	0.05 *
TOTAL ZINC (mg/l)	0.020	200.7	5.0 *
TOTAL ANTIMONY (mg/l)	<0.005	200.7	0.006
TOTAL ALUMINUM (mg/l)	0.323	200.7	0.05 - 0.20*
DISSOLVED ALUMINUM (mg/l)	<0.005	200.7	0.05 - 0.20*
TOTAL ARSENIC (mg/l)	0.006	200.7	0.01
DISSOLVED ARSENIC (mg/l)	0.005	200.7	0.01
TOTAL BARIUM (mg/l)	0.132	200.7	1.0
TOTAL BERYLLIUM (mg/l)	<0.001	200.7	0.004
TOTAL COPPER (mg/l)	0.006	200.7	1.00
TOTAL SILVER (mg/l)	<0.005	200.7	0.05
TOTAL NICKEL (mg/l)	<0.005	200.7	0.10
TOTAL CADMIUM (mg/l)	<0.001	200.7	0.010
TOTAL CHROMIUM (mg/l)	<0.005	200.7	0.05
TOTAL LEAD (mg/l)	<0.005	200.7	0.015
TOTAL MERCURY (mg/l)	< 0.0002	245.1	0.002
TOTAL SELENIUM (mg/l)	<0.005	200.7	0.01
TOTAL THALLIUM (mg/l)	<0.001	200.7	0.002
SULFATE (mg/l)	<2.0	ASTM D516-90	300.0 *
CHLORIDE (mg/l)	115.0	SM 4500-Cl B	300.0 *
NITRATE (mg/l)	<0.1	SM 4500-NO3 E	10.0
NITRITE (mg/l)	<0.05	SM 4500-NO2 B	1.00
FLUORIDE (mg/l)	1.18	SM 4500-F C	2.00
DISSOLVED FLUORIDE (mg/l)	1.16	SM 4500-F C	2.00
ODOR (THRESHOLD #)	< 1.0	N/A	3.0
TEMPERATURE (C/F)	27/80.6	N/A	N/A
LANGELIER INDEX	-0.2	N/A	N/A
HYDROGEN SULFIDE (mg/l)	<0.05	SM 4500-S/D	0.05

* DENOTES: Secondary Standards (Recommended)

CERTIFIED BY

ENVIRODYNE ELI LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: **League City- South Shore Harbour** (Weisinger Inc.)
LAB NUMBER: 14L1198B
DATE COLLECTED: 10-Dec-14
DATE RECEIVED: 10-Dec-14
DATE COMPLETED: 17-Dec-14
SAMPLED BY: LKB

LOCATION: / PARAMETERS:	WELL- 440'-460' @ 0800	DETECTION LIMITS (ug/l)
CHLOROMETHANE (ug/l)	1.0 U	1.0
VINYL CHLORIDE (ug/l)	2.0 U	2.0
BROMOMETHANE (ug/l)	1.0 U	1.0
CHLOROETHANE (ug/l)	1.0 U	1.0
TRICHLOROFUOROMETHANE (ug/l)	1.0 U	1.0
1,1-DICHLOROETHENE (ug/l)	1.0 U	1.0
METHYLENE CHLORIDE (ug/l)	1.0 U	1.0
trans-1,2-DICHLOROETHENE (ug/l)	1.0 U	1.0
cis-1,2-DICHLOROETHENE (ug/l)	1.0 U	1.0
1,1-DICHLOROETHANE (ug/l)	1.0 U	1.0
1,1,1-TRICHLOROETHANE (ug/l)	1.0 U	1.0
CHLOROFORM (ug/l)	1.0 U	1.0
CARBON TETRACHLORIDE (ug/l)	1.0 U	1.0
1,2-DICHLOROETHANE (ug/l)	1.0 U	1.0
BENZENE (ug/l)	1.0 U	1.0
TRICHLOROETHENE (ug/l)	1.0 U	1.0
1,2-DICHLOROPROPANE (ug/l)	1.0 U	1.0
BROMODICHLOROMETHANE (ug/l)	1.0 U	1.0
cis-1,3 DICHLOROPROPENE (ug/l)	1.0 U	1.0
TOLUENE (ug/l)	1.0 U	1.0
trans-1,3-DICHLOROPROPENE (ug/l)	1.0 U	1.0
1,1,2-TRICHLOROETHANE (ug/l)	1.0 U	1.0
TETRACHLOROETHENE (ug/l) - (PERC)	1.0 U	1.0
DIBROMOCHLOROMETHANE (ug/l)	1.0 U	1.0
CHLOROBENZENE (ug/l)	1.0 U	1.0
2-CHLOROETHYLVINYL ETHER (ug/l)	5.0 U	5.0
ETHYLBENZENE (ug/l)	1.0 U	1.0
BROMOFORM (ug/l)	1.0 U	1.0
1,1,2,2-TETRACHLOROETHANE (ug/l)	1.0 U	1.0
1,2-DIBROMOETHANE (ug/l)	1.0 U	1.0
XYLENE (ug/l)	1.0 U	1.0
TOTAL TRIHALOMETHANES (ug/l)	1.0 U	1.0
1,2,4-TRICHLOROBENZENE (ug/l)	1.0 U	1.0
DICHLOROMETHANE (ug/l)	1.0 U	1.0
o-DICHLOROBENZENE (ug/l)	1.0 U	1.0
p-DICHLOROBENZENE (ug/l)	1.0 U	1.0

LAB REPRESENTATIVE

Ref. EPA-524 (VOLATILES)
U - Analyte Not Detected at the Listed Detection Limit
J - Analyte Present but Below Detection Limit
Qual: Analyzed by NELAC certified lab T104704218

(281) 568-7880
11011 Brooklet Dr. #230, Houston, TX 77099

ENVIRODYNE LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: **f League City- South Shore Harbour** (Weisinger Inc.)

LAB NUMBER: 14L1198C

DATE COLLECTED: 10-Dec-14

DATE RECEIVED: 10-Dec-14

DATE COMPLETED: 17-Dec-14

SAMPLED BY: LKB

LOCATION: **WELL- 440'-460'**

PARAMETERS: BNA/Pest.		Maximum Contaminant Levels (MCLs) in ug/l			Maximum Contaminant Levels (MCLs) in ug/l
ATRAZINE (ug/l)	< 1.0	3.0	Alachlor (ug/l)	< 0.02	2
HEXACHLOROBENZENE (ug/l)	< 1.0	1.0	Heptachlor (ug/l)	< 0.03	0.4
HEXACHLOROCYCLOPENTADIENE (ug/l)	< 10.0	50.0	Heptaclor Epoxide (ug/l)	< 0.20	0.2
BENZO (a) PYRENE (ug/l)	< 0.1	0.2	Gamma-BHC (Lindane) (ug/l)	< 0.03	0.2
PENTACHLOROPHENOL (ug/l)	< 1.0	1.0	Chlordane (ug/l)	< 0.14	2
Di (2-ETHYLHEXYL) PHTHALATE (ug/l)	< 5.0	6.0	Toxaphene (ug/l)	< 2.40	3
Di (2-ETHYLHEXYL) ADIPATE (ug/l)	< 100.0	400.0	Methoxychlor (ug/l)	< 0.50	40
Simazine (ug/l)	< 1.0	4.0	Ethylene dibromide (ug/l)	< 0.01	0.05
Endrin (ug/l)	< 0.06	2.0	Glyphosate (ug/l)	< 0.100	700.0
Carbofuran (ug/l)	< 0.04	40.0	Oxamyl (ug/l)	< 100.0	200.0
Dalapon (ug/l)	< 0.20	200.0	Styrene (ug/l)	< 50.0	100.0
Dibromochloropropane (ug/l)	< 0.1	0.2	Picloram (ug/l)	< 100.0	500.0
Dinoseb (ug/l)	< 1.0	7.0	*2,4,5-TP (SILVEX) (ug/l)	< 4.0	50
Diquat (ug/l)	< 10.0	20.0	*2,4-D (ug/l)	< 10.0	70
Endothall (ug/l)	< 50.0	100.0	Total PCBs (mg/l)	< 0.5	0.5

LAB REPRESENTATIVE

Analyzed by NELAP accredited lab T104704218

Ref. EPA-525.2 (Base/Neutrals & Acids)

U - Analyte Not Detected at the listed Detection Limit

J - Analyte Present but below Detection Limit

(281) 568-7880 11011 Brooklet Dr. #230, Houston, TX 77099

EMSL Analytical, Inc.
8700 Jameel Road, Suite 190 Houston, TX 77040
Phone/Fax: (713) 686-3635 / (713) 686-3645
http://www.EMSL.com / houstonlab@emsl.com

EMSL Order ID:	151406620
Customer ID:	ENDY62
Customer PO:	
Project ID:	

Attn: Sherry Walker
Envirodyne Laboratories, Inc.
11011 Brooklet. Suite 230
Houston, TX 77099

Proj: Lg. City South Shore Harbor

Phone:	(281) 568-7880
Fax:	(281) 568-7880
Collected:	12/10/2014
Received:	12/11/2014
Analyzed:	12/17/2014

Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm^2)	Area Analyzed (mm^2)	ASBESTOS				
					Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
							MFL (million fibers per liter)		
Well 151406620-0001	12/11/2014 01:08 PM	100	1282	0.0756	None Detected	ND	0.17	<0.17	0.00 - 0.63

Analyst(s)
Jason Mote (1)

Michelle Leggett, Laboratory Manager
or Other Approved Signatory

Any questions please contact Michelle Leggett

Initial report from: 12/17/2014 13:44:33

Sample collection and containers provided by the client, acceptable bottle blank level is defined as ≤0.01MFL>10um. ND=None Detected. This report relates only to those items tested. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Houston, TX NELAC TX T104704379-11-4

KNL ENVIRONMENTAL TESTING

DOH Certification #E84025
Cert.# T104704527-14-1

Report Date: December 18, 2014

Envirodyne Laboratories, Inc.
11011 Brooklet, Ste 230
Houston, TX 77099-3547

Field Custody:	Client
Client/Field ID:	Weisinger Lg City South Shore Harbor/Well
Sample Collection:	12-10-14/0800
Lab ID No:	14.10170
Lab Custody Date:	12-10-14/0800
Sample description:	Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	2.5 ± 0.8	12-16-14/1100	EPA 00-02	0.7
Gross Beta	pCi/l	3.5 ± 1.1	12-15-14/0800	EPA 900.0	2.2
Radium-226	pCi/l	0.7 ± 0.3	12-16-14/1100	EPA 903.0	0.3
Radium-228	pCi/l	0.0 ± 0.6	12-17-14/1437	EPA Ra-05	0.8
Uranium	pCi/l	0.1 ± 0.2	12-15-14/1530	EPA 908.0	0.3
Uranium	ug/l	0.1 ± 0.3	Calc.	EPA 908.0	0.4
Radon-222	pCi/l	174 ± 11	12-1-214/0808	*	3.8

Alpha Standard: Th-230
Beta Standard: Cs-137

*EPA/600/2-87/082 appendix D

James W Hayes

James W. Hayes
Laboratory Manager

Test results meet all requirements of the NELAC standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Jim Hayes (813) 229-2879.

WEISINGER INCORPORATED
Water Resource Professionals
2200 East Davis St. ● Conroe, TX 77301 ● (936)756-7721

NEW WELL- MATERIAL SETTING

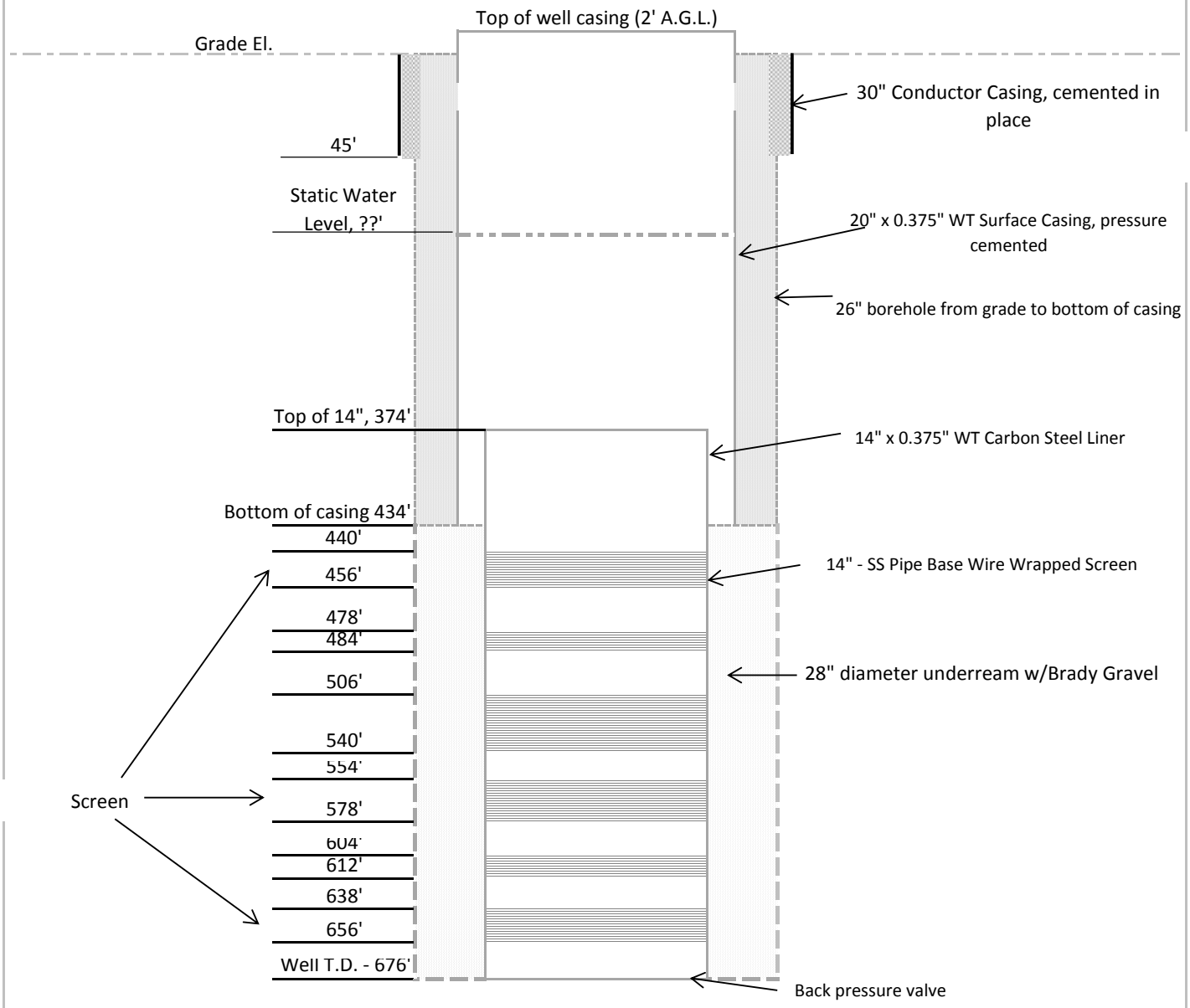
Customer:	City of League City	Date:	12/17/2014
		Work Order No.:	1540
		Engineer:	CDM Smith
Well Name:	South Shore Harbour	Phone No.:	(713)-423-7300

Production well design:	20" x 14"	Gravel pack:	Premier Silica 12-20	Slot size (in.):	0.025" Gauge
Surface casing material:	20" x .375" WT	Liner material:	14" x .375" WT	Design flow (gpm):	1,500
Surface casing depth:	2' A.G.L. - 434'	Underream size (in.):	28"	Datum point (ft.):	8' A.G.L.

DEPTH (ft.)			DESCRIPTION	BLANK LINER (ft.)	PIPE BASE SCREEN (ft.)
2	-	434	20" x .375" wall blank casing		
374	-	440	14" x .375" wall blank liner	66	
440	-	456	14" s.s. pipe base screen		16
456	-	478	14" x .375" wall blank liner	22	
478	-	484	14" s.s. pipe base screen		6
484	-	506	14" x .375" wall blank liner	22	
506	-	540	14" s.s. pipe base screen		34
540	-	554	14" x .375" wall blank liner	14	
554	-	578	14" s.s. pipe base screen		24
578	-	604	14" x .375" wall blank liner	26	
604	-	612	14" s.s. pipe base screen		8
612	-	638	14" x .375" wall blank liner	26	
638		656	14" s.s. pipe base screen		18
656	-	676	14" blank liner & B.P.V.	20	

TOTAL MATERIALS

TOTAL AMOUNT	of 20" x .375" wall surface casing.....	436	ft.
14" x .375"	wall blank liner & B.P.V.....	196	ft.
14" x .375"	wall pipe base s.s. screen.....	106	ft.



Drawing:	Well Construction				
Customer:	City of League City	Job No.:	1540	By:	MSW
Project:	South Shore Harbour Well			Date:	12/18/2014

WEISINGER INCORPORATED
Water Resource Professionals
2200 East Davis St. ● Conroe, TX 77301 ● (936)756-7721

NEW WELL- MATERIAL SETTING

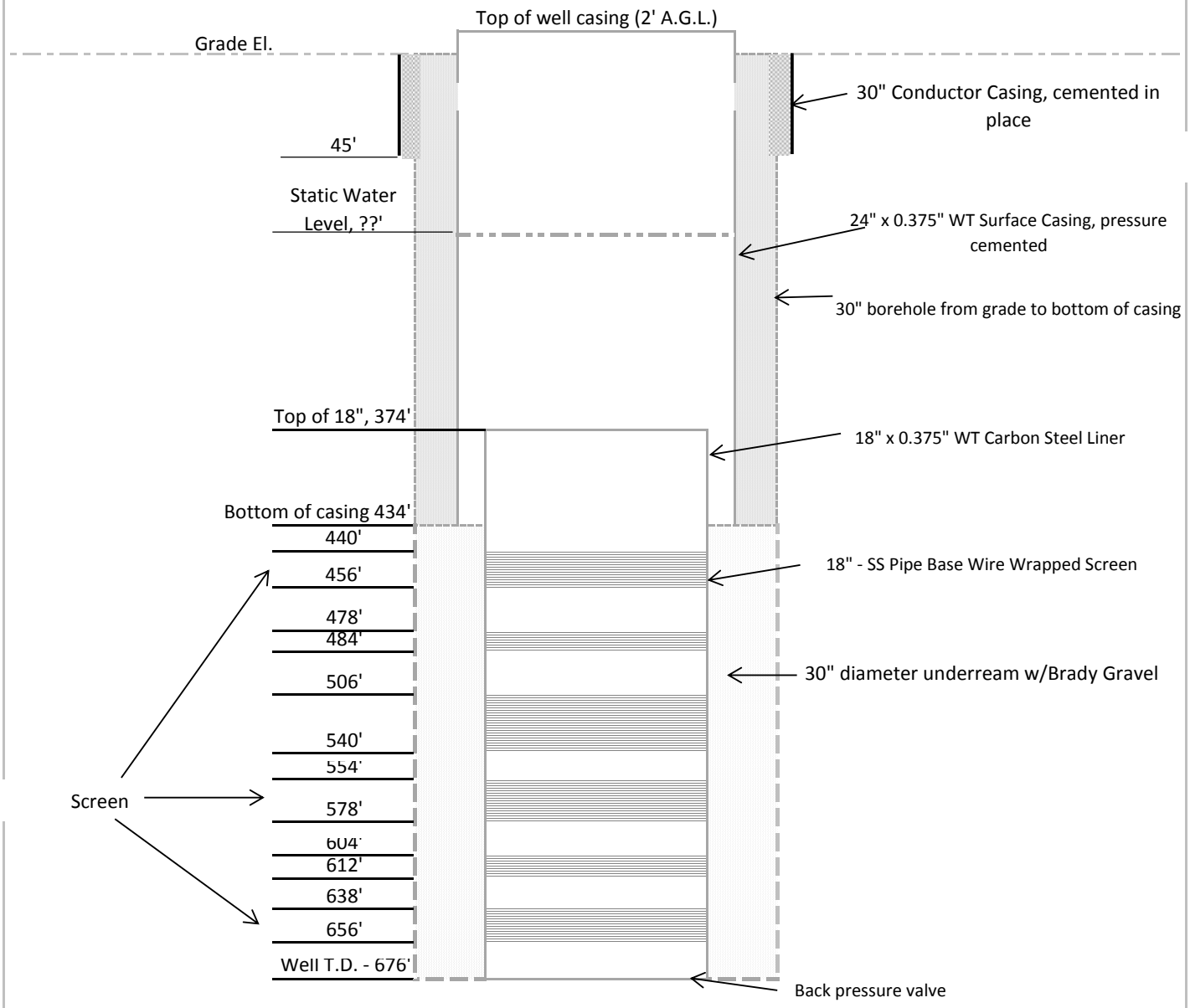
Customer:	City of League City	Date:	12/17/2014
		Work Order No.:	1540
		Engineer:	CDM Smith
Well Name:	South Shore Harbour	Phone No.:	(713)-423-7300

Production well design:	24" x 18"	Gravel pack:	Premier Silica 12-20	Slot size (in.):	0.025" Gauge
Surface casing material:	24" x .375" WT	Liner material:	18" x .375" WT	Design flow (gpm):	1,500
Surface casing depth:	2' A.G.L. - 434'	Underream size (in.):	30"	Datum point (ft.):	8' A.G.L.

DEPTH (ft.)			DESCRIPTION	BLANK LINER (ft.)	PIPE BASE SCREEN (ft.)
2	-	434	24" x .375" wall blank casing		
374	-	440	18" x .375" wall blank liner	66	
440	-	456	18" s.s. pipe base screen		16
456	-	478	18" x .375" wall blank liner	22	
478	-	484	18" s.s. pipe base screen		6
484	-	506	18" x .375" wall blank liner	22	
506	-	540	18" s.s. pipe base screen		34
540	-	554	18" x .375" wall blank liner	14	
554	-	578	18" s.s. pipe base screen		24
578	-	604	18" x .375" wall blank liner	26	
604	-	612	18" s.s. pipe base screen		8
612	-	638	18" x .375" wall blank liner	26	
638		656	18" s.s. pipe base screen		18
656	-	676	18" blank liner & B.P.V.	20	

TOTAL MATERIALS

TOTAL AMOUNT	of 24" x .375" wall surface casing.....	436	ft.
18" x .375"	wall blank liner & B.P.V.....	196	ft.
18" x .375"	wall pipe base s.s. screen.....	106	ft.



Drawing:	Well Construction				
Customer:	City of League City	Job No.:	1540	By:	MSW
Project:	South Shore Harbour Well			Date:	12/18/2014

WEISINGER INCORPORATED
Water Resource Professionals
2200 East Davis St ● Conroe, TX 77301
936-756-7721 ● 281-353-8484 ● 936-756-7723 fax
www.weisingerinc.com

December 18, 2014

CDM Constructors, Inc.
3050 Post Oak Blvd., STE 300
Houston, TX 77056

Attn: Mike Clarke

Re: City of League City – South Shore Harbour Well – Proposed Well Material Settings Cost

Mr. Clarke:

Please review the following which includes the cost difference for the proposed material settings.

Bid 20" x 14" well to include:	
700 ft. – Pilot Hole Depth	
490 ft. - 20" Surface Casing	
74 ft. – 14" Blank Liner	
136 ft. - 14" Pipe Base Screen	
Original Contract Amount	$900,500.00
Additional Test Well Sample	$35,000.00
Current Contract Amount	$935,500.00

Proposed 24" x 18" well to include:	
700 ft. – Pilot Hole Depth (no change)	$0.00
434 ft. - 24" Surface Casing (Add 434 ft. @ $125/ft.)	$54,250.00
196 ft. - 18" Blank Liner (Add 196 ft. @ $75/ft.)	$14,700.00
106 ft. - 18" Pipe Base Screen (Add 106 ft. @ $215/ft.)	$22,970.00
0 ft. - 20" Surface Casing (Deduct 490 ft. @ $85/ft.)	<$41,650.00>
0 ft. - 14" Blank Liner (Deduct 74 ft. @ $50/ft.)	<$3,700.00>
0 ft. - 14" Pipe Base Screen (Deduct 136 ft. @ $150/ft.)	<$20,400.00>
Net Increase to Current Contract Amount	$26,170.00
Revised Total Contract Amount	$961,670.00

Proposed 20" x 14" well to include:	
700 ft. – Pilot Hole Depth (no change)	$0.00
434 ft. - 20" Surface Casing (Deduct 56 ft. @ $85/ft.)	<$4,760.00>
196 ft. - 14" Blank Liner (Add 122 ft. @ $50/ft.)	$6,100.00
106 ft. - 14" Pipe Base Screen (Deduct 30 ft. @ $150/ft.)	<$4,500.00>
Net Decrease to Current Contract Amount	<$3,160.00>
Revised Total Contract Amount	$932,340.00

Thank you for the opportunity to offer you our services as we wait for your response.

Yours truly,

Michael Weisinger
Project Manager

CCR #003

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City,TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**003**	**Date:**	**12/23/2015**
CHANGE DESCRIPTION	During the bidding process the design intent was to relocate the South Shore Harbour Booster Pump Station (SSH-BPS) existing generator to the location of the existing hydropneumatic tank. At that time, The City indicated that the hydropneumatic tank would be able to be disconnected and re-located once the State Highway 3 Booster Pump Station (SH3-BPS) was online (October 2014). Upon further investigation by the City it was determined that the hydropneumatic tank would need to remain in service until after the new SSH-BPS pump station is online. Due to the timing of installing the new Water Well and Flow Metering Station, the generator needed to be moved prior to removal of the hydropneumatic tank, causing CDM Constructors Inc. to incure additional costs for moving the generator twice.		
AMOUNT ($):	$14,303	**ROM TIME IMPACT (DAYS):**	**0**

CDM Smith

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY:** Paradis/Nicholson

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 12/23/2015

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
	Crane Rental	1	LS						$ 6,115	$ 6,115			$ 6,115
	Field Labor (2 field staff members, 2 days)	32	MH	32.0	$ 55.00	$ 1,760	$ 176	$ 5,645					$ 7,405
CCI General Conditions													$ -
	Project Manager	1	MH	1.0	$ 101.57	$ 102	$ -	$ -	$ -	$ -	$ -	$ -	$ 102
	Construction Specialist (PE)	2	MH	2.0	$ 42.06	$ 84	$ -	$ -	$ -	$ -	$ -	$ -	$ 84
	Superintendent	8	MH	8.0	$ 74.59	$ 597	$ -	$ -	$ -	$ -	$ -	$ -	$ 597
				43.0		**$ 2,543**		**$ 5,645**		**$ 6,115**		**$ -**	**$ 14,303**

QUOTATION

Prices are valid for 90 days from quote date

TNT Quote # SS-2014-0247
TNT Rental #

Customer Job #
Customer PO #
Please send your PO# to po@tntcrane.com

CUSTOMER & BILLING ADDRESS: New Customer: ☐	**JOB LOCATION:**	
CDM Smith	**League City Water Plant**	
3050 Post Oak Blvd, Suite 300	**2600 FM 518 @ Louisiana St**	
Houston, TX 77056	**League City, TX 77056**	
	Jobsite Contact: Aaron (713) 817-2784	
Customer Contact(s): Aaron Mollohan	TNT Salesmen: Steve Scoville	Cell: 281-615-1996
Phone: (713) 423-7300 Fax: (713) 840-0173:	Quote Date: 10/2/14	Job Date: **Quote**
Email: mollohanda@cdmsmith.com	Additional Info:	

Re-Rent: ☐ Re-Rent TO:	TNT Vendor PO:

THIS QUOTATION IS FOR SERVICES AS DESCRIBED BELOW: "ESTIMATE" IS FOR CUSTOMER'S BID PURPOSES

Hourly	Estimate	Contract	Credit Pending	Account	COD
X	X			X	

$6,115.00.00 estimated cost based on 8 hour minimum (Weekdays)

Crane:	**120 ton crane @ $310/hr 8 hr minimum**	Rigging:	**6' Plate bar with generator pipes @ $350/day**
Truck:	**Counterweight freight @ $700/each way**	Tools:	
Forklift:		Men:	2) Riggers @ $75/hr/each
Truck:		Mats:	
Misc.:		Fuel :	**6% Fuel Surcharge**
Orientation Requirements:			

If Needed: Crew travel @ $50/hr/man; Safety personnel @ $85/hr/man; CAD drawings @ $85/hr; Per Diem @ $150/day/man

Travel Each Way	Permits	# of Trips
Port to port	**$450**	**1**

Overtime Rate:	$30 per hr per man	Crane Minimum: **8** hrs per day for **1** day(s)

Overtime rate applies before 6 am, after 4 pm OR after 8 hours per day, and on weekends and/or holidays.

Scope of work: **Work as directed by customer to relocate generator**

Customer to provide: **Access, clearances,**

Job/Equipment sized by: CUSTOMER: ☒ TNT: ☒

Quotation based on the following criteria:								
Boom	CWT	S/L	Jib	Out	Up	Over	Radius	Weight
96'	**Full**						**60'**	**18,600 lbs**

Ground Conditions	Jobsite Access	Power lines	Crane Capacity
Good	**Good**		

QUOTATION

Prices are valid for 90 days from quote date

1. **Effective Date:** These terms and conditions between the customer ("Customer") and TNT Crane & Rigging, Inc. ("TNT") apply to all quote/estimate ("Quote"), or invoice issued pursuant to a purchase order number ("PO#") by TNT to such Customer ("Invoice"), shall be and binding on the parties upon "Acceptance" by the Customer which is defined as the earliest to occur of the following: (i) Delivery (as defined in §3 below); (ii) the issuance of a PO# by the Customer for work to be performed pursuant to a Quote (collectively, "Work"); or (iii) confirmation in writing by the parties of agreement to the terms of the Quote. Unless otherwise amended or mutually agreed to by the parties, this agreement shall terminate on the Job End date at the Job End time.

2. **Estimated Total Price:** Unless otherwise stated, the "Estimate Total" stated on the Quote: (i) is only applicable to Work performed by the TNT branch whose address appears in the Quote; (ii) is subject to availability at the time Acceptance; (iii) does not include applicable sales and use taxes; (iv) is based on weight, load, radius and special rigging specifications provided by Customer to TNT; (v) is based on continuous operation with no delays caused by factors outside the control of TNT; and (vi) is provided without a Jobsite inspection and is subject to the Jobsite Conditions set forth in §5. Further, (vii) overtime rates shall be charged on weekdays for certain hours worked before 8:00 a.m. or after 4:00 p.m. AND/OR after 8 hours worked per day. Applicability of OT rates will depend on the TNT branch location where the Quote for the Work is issued (viii) overtime rates shall apply on all hours worked on weekends and/or holidays; (ix) crane assembly and disassembly shall be charged at hourly rates; (x) additional charges will apply for underground civil that requires additional plating or matting; and (xi) for Work quoted on an hourly basis: (a) time shall be charged for all travel, set-up, breakdown, and entry and exit from portal to portal; (b) a daily minimum depending on the size of the crane, shall be applicable.

Upon Acceptance, the pricing terms quoted in the Quote shall be final subject to adjustments as outlined in these terms and conditions. For the avoidance of doubt, in the event the final amount charged for actual Work performed exceeds the estimate in the Quote, Customer agrees that its approval of such Work by its signature on confirmatory documentation constitutes its agreement to amend the Quote to the extent thereof.

3. **Delivery:** As used herein, "Delivery" is the earliest date on which TNT (i) takes possession of Customer's equipment for purposes of performing the Work; (ii) arrives at the Customer's Job Location ("Jobsite") with its equipment (collectively, "Equipment" which includes crane, rigging, and/or related accessories listed in the Quote) in preparation for the performance of the Work. Customer acknowledges and agrees that TNT's possession of Customer's equipment is solely for the benefit and convenience of Customer and that between the time when such equipment is delivered to TNT and until such time the equipment is installed, the equipment shall be held by TNT at the sole risk and responsibility of Customer for loss, theft, destruction of such equipment and/or for any damage incurred by Customer or TNT arising out of such possession, in whole or in part, whether with or without fault on the part of TNT. Further, in the event such Customer equipment is held by TNT for any period greater than 48 hours, TNT shall have the right to charge Customer a storage fee which shall be included as part of the price for the Work.

4. **Payment:** All payments will be due thirty (30) days after the date of each Invoice. All payment shall be paid and delivered to the address designated by TNT on the face of the Invoice. Past due amounts plus any unpaid interest shall bear interest at 1.5% per month or to the maximum amount allowable under law.

5. **Jobsite Conditions:** Unless otherwise agreed to by the parties in writing, Customer shall provide appropriate Jobsite clearance and access as necessary for TNT's performance of the Work, including but not limited to, appropriate staging area for crane pre/post rig up/down. Customer shall be solely responsible for costs and/or damages caused by or arising out of delays to the Work due to inadequate Jobsite conditions. Customer acknowledges that the Equipment may exceed the maximum weight allowance for certain improved surface areas at the Jobsite(s) and agrees that Customer shall be responsible for and shall hold TNT harmless from any resulting damage arising out of or relating thereto, including but not limited to parking areas, road surfaces and/or underground installations.

6. **Scope of Work:** The Work to be performed shall be as stated on the Quote unless otherwise mutually amended by the parties. TNT shall provide Equipment in good working condition, capable of performing to published data, and, when applicable, operating personnel who are competent and experienced in the operation of the Equipment. TNT shall provide barricade for cranes per ANSI 1926.550(A)(9) or equivalent standard that may be applicable from time to time. If not specified in the Quote, Customer is solely responsible for rigging the load. Any rigging assistance provided or chockers, shackles, slings, fittings or any other rigging equipment that may be loaned to Customer shall be used and accepted by Customer at its sole risk and responsibility. TNT makes no express or implied warranty of any kind whatsoever, with respect to such assistance or loaned equipment. In the event of Customer provided rigging equipment, Customer shall bear all risk and be responsible for any damage caused by failed rigging supplied by Customer, including damage to TNT's Equipment. Customer will provide competent personnel, when needed, to direct or flag the operation of TNT Equipment, and agrees to use standard crane and derrick hand signals in accordance with the American Standard B 30.2-1943, OSHA 29CFR1926.1427 Crane & Derricks in Construction, and/or the latest ANSI standard for the type of crane in use to direct or flag TNT Equipment.

7. **INDEMNIFICATION: FOR PURPOSES OF THIS §7, (i) "CLAIMS" SHALL INCLUDE, WITHOUT LIMITATION, ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, FINES, PENALTIES, ENFORCEMENT PROCEEDINGS, SUITS, AND LIABILITIES OF EVERY KIND (INCLUDING INTEREST AND ALL EXPENSES OF LITIGATION, COURT COSTS, AND REASONABLE ATTORNEYS' FEES), WHETHER ARISING IN TORT, CONTRACT, STRICT LIABILITY, UNDER STATUTE, OR OF ANY OTHER CHARACTER WHATSOEVER; (ii) "TNT GROUP" MEANS TNT, ITS PARENT, SUBSIDIARY AND AFFILIATED COMPANIES, AND ITS SUBCONTRACTORS AND SUPPLIERS (OF WHATEVER TIER), AND ITS AND THEIR RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, MANAGERS, PARTNERS, EMPLOYEES, AGENTS, AND REPRESENTATIVES; (iii) "CUSTOMER GROUP" MEANS CUSTOMER, ITS PARENT, SUBSIDIARY AND AFFILIATED COMPANIES, ITS AND THEIR CUSTOMERS, CO-LESSEES, PARTNERS, JOINT VENTURERS, CO-OWNERS, SUBCONTRACTORS (OTHER THAN TNT), AND ITS AND THEIR RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, MANAGERS, PARTNERS, EMPLOYEES, AGENTS, AND REPRESENTATIVES.**

BOTH PARTIES AGREE THAT THIS §7 COMPLIES WITH THE REQUIREMENT KNOWN AS THE EXPRESS NEGLIGENCE RULE TO EXPRESSLY STATE IN A CONSPICUOUS MANNER TO AFFORD FAIR AND ADEQUATE NOTICE THAT THIS §7 HAS PROVISIONS REQUIRING ONE PARTY TO BE RESPONSIBLE FOR THE NEGLIGENCE, STRICT LIABILITY, OR OTHER FAULT OF ANOTHER PARTY. TNT SHALL BE RESPONSIBLE FOR AND SHALL SAVE, INDEMNIFY, DEFEND AND HOLD HARMLESS CUSTOMER GROUP, FROM AND AGAINST ALL CLAIMS FOR THE FOLLOWING ARISING OUT OF THE PERFORMANCE OF THIS AGREEMENT FOR (i) INJURY, OR DEATH OF TNT GROUP PERSONNEL AND FOR (ii) PERSONAL INJURY, SICKNESS OR DEATH OF ANY THIRD PARTY; OR (iii) LOSS OF, DAMAGE TO, OR LOSS OF USE OF PROPERTY, CAUSED BY OR RESULTING FROM THE NEGLIGENCE OF TNT GROUP BUT EXCLUDING ANY CONTRIBUTORY NEGLIGENT ACT OR OTHER BREACH OF DUTY (WHETHER STATUTORY OR OTHERWISE) OF ANY MEMBER(S) OF CUSTOMER GROUP IN CONNECTION WITH TNT'S PERFORMANCE OF THE SERVICES UNDER THIS AGREEMENT, AND IN THE EVENT OF JOINT OR CONCURRENT NEGLIGENCE OR FAULT OF TNT GROUP AND CUSTOMER GROUP, TNT'S INDEMNIFICATION OBLIGATION HEREUNDER SHALL BE LIMITED TO ITS ALLOCABLE SHARE OF SUCH JOINT OR CONCURRENT NEGLIGENCE OR FAULT.

CUSTOMER SHALL BE RESPONSIBLE FOR AND SHALL SAVE, INDEMNIFY, DEFEND AND HOLD HARMLESS TNT GROUP, FROM AND AGAINST ALL CLAIMS FOR THE FOLLOWING ARISING OUT OF THE PERFORMANCE OF THIS AGREEMENT FOR (i) INJURY, OR DEATH OF CUSTOMER GROUP PERSONNEL AND FOR (ii) PERSONAL INJURY, SICKNESS OR DEATH OF ANY THIRD PARTY; OR (iii) LOSS OF, DAMAGE TO, OR LOSS OF USE OF PROPERTY, CAUSED BY OR RESULTING FROM THE NEGLIGENCE OF CUSTOMER GROUP BUT EXCLUDING ANY CONTRIBUTORY NEGLIGENT ACT OR OTHER BREACH OF DUTY (WHETHER STATUTORY OR OTHERWISE) OF ANY MEMBER(S) OF TNT GROUP IN CONNECTION WITH CUSTOMER'S PERFORMANCE OF THE SERVICES UNDER THIS AGREEMENT, AND IN THE EVENT OF JOINT OR CONCURRENT NEGLIGENCE OR FAULT OF TNT GROUP AND CUSTOMER GROUP, CUSTOMER'S INDEMNIFICATION OBLIGATION HEREUNDER SHALL BE LIMITED TO ITS ALLOCABLE SHARE OF SUCH JOINT OR CONCURRENT NEGLIGENCE OR FAULT.

8. **Force Majure:** The obligations of TNT under this agreement shall be suspended to the extent that TNT is hindered or prevented from performing its obligations because of labor disturbances or differences with workmen or employees, including strikes and lockouts or acts of God. TNT shall not be liable for non-delivery or delay in Delivery or for consequential damage which may arise if such failure is the result of fires, embargo, storms, accidents, delays caused by independent freight companies, federal, state, municipal or other governmental action, statutes, ordinances, regulations, shortages of the Equipment, inability to obtain raw materials, labor, fuel or supplies, or interferences, or any contingency, circumstance or cause whatsoever beyond the control of TNT. At TNT's sole option, TNT shall have the right to either extend time for Delivery or charge Customer for stand-by cost at the standard T&M or other agreed upon rate.

9. **Events of Default:** The occurrence of any of the following shall constitute an "event of default" under this agreement: (i) Customer shall fail to pay any Invoice or other sum due under this agreement, including, without limitation, interest within ten (10) days after such sum is due; (ii) Customer shall fail to observe or perform any other covenant or agreement contained herein; (iii) Any petition shall be filed by or against Customer under any section or chapter of the United States Code – Bankruptcy Act, as amended, or under any similar law or statute of the United States or any state thereof, or Customer shall become insolvent or make a transfer in fraud of creditors or for the benefit of creditors, or a receiver shall be appointed for Customer or any of the assets of Customer; (iv) Any lien attached to or filed against any Equipment leased hereunder or, any of Customer's assets or any attachment, sequestration or similar proceedings shall be commenced against any of Customer's assets; or (v) If Customer fails to keep the Equipment in good repair, safe and efficient working order, or if the Equipment is removed from the location where delivered other than for return to TNT.

10. **Remedies:** Upon the occurrence of an event of default, TNT shall have the right to exercise any one or more of the following remedies: (i) To declare the entire amount of all sums due under this agreement immediately payable without notice or demand to Customer; (ii) To sue for and recover all sums due under this agreement; (iii) To take possession of any or all items of Equipment, without demand or notice, wherever the Equipment may be located, without any court order or other process by law; Customer waives any and all damages caused by such taking of possession. Any such taking of possession shall not constitute a termination of this agreement as to any or all items of Equipment unless TNT otherwise notified in writing; (iv) To terminate this agreement as to any or all items of Equipment or Work; and (v) To pursue any other remedy at law or in equity. Notwithstanding any action which TNT may take, Customer shall be and remain liable for the full performance of all obligations on the part of Customer to be performed under this agreement. All such remedies are cumulative and may be exercised concurrently or separately. Customer shall be liable to TNT for all of TNT's attorneys' fees and other expenses in connection with exercising any of its rights under this agreement, including cost to demobilize the Work and any cost incurred in connection with taking possession of the Equipment and repairing and restoring the Equipment to the condition in which it was leased.

17. **No Encumbrances:** TNT shall retain title to the Equipment at all times. Customer shall, at its own cost and expense, protect and defend the title and rights of TNT to or in the Equipment from and against all claims, liens, charges, encumbrances and legal process, whether imposed, asserted or instituted by creditors of Customer or otherwise, and Customer shall promptly take all action necessary, at its own expense, to discharge any claims, liens, charges, encumbrances or legal process.

18. **Severability:** If any provisions of this agreement are in conflict with any statue or rule of law of any state or territory where such provisions may be sought to be enforced, then such provisions shall be deemed null and void to the extent that they conflict with any statute or law but without invalidating the remaining provisions of this agreement. No covenant or condition of this agreement may be waived except by the written consent of TNT. Forbearance or indulgence by TNT in any regard whatsoever shall not constitute a waiver of the covenant or condition to be performed by Customer and, until such covenant or condition has been completely performed by Customer, TNT shall be entitled to any remedy available to TNT under this agreement or by law or in equity despite TNT's forbearance or indulgence.

19. **Limitation of Liability. Under no circumstances, whether arising in contract, tort (including negligence), equity or otherwise, will TNT be responsible for loss of use, loss of profit, increased operating or maintenance expenses, or any special, indirect or consequential damages of any kind.**

20. **Notice:** Any written notice or demand shall be given by registered or certified US Mail, return receipt requested, facsimile, overnight delivery service regularly providing proof of delivery or personal delivery at the address specified on the reverse side or such other address as may be designated in writing.

21. **Work in Louisiana:** TNT recognizes and agrees that for purposes of Louisiana State Workmen's Compensation Laws Customer is a statutory employer of TNT's employees-defined to include TNT's direct, borrowed, special or statutory employees, including without limitations subcontractors and vendors, their subcontractors and vendors, and the employees and agents of any of the foregoing-and all work and operations performed by TNT and its employees pursuant to this Agreement are an integral part of and are essential to the ability of Customer to generate Customer's goods, products or services.

22. **Choice of Law/Dispute Resolution.** The rights, duties and obligations of the parties hereunder shall be governed and construed in accordance with the laws of the State of Texas, excluding any conflicts or laws or rules which would refer its interpretation to the laws of another jurisdiction. At TNT's option, all claims, disputes, and other matters in question arising out of or raising to this Agreement, or the breach thereof, may be decided by arbitration, which shall be conducted in accordance with the Crane Industry Arbitration Rules of the American Arbitration Association then in effect with a single arbitrator under fast track procedures unless otherwise elected by TNT. All arbitration proceedings will be in Houston, Texas. This Agreement to arbitrate shall be specifically enforceable under the Federal Arbitration Act. It is agreed that the Work performed and/or Equipment provided pursuant to this Agreement affects and involves interstate commerce. The award rendered by the arbitrators shall be final and judgment may be entered upon it in accordance with the applicable law in the court having jurisdiction thereof. Any legal action against the TNT arising out of relating to this agreement, or the breach thereof, shall be commenced within one (2) years from the date of the completion of the Work or the Equipment is rented to Customer. Venue for any state court action taken against TNT shall be in Harris County, Texas, and venue for any federal court action taken against TNT shall be in the Southern District of Texas, Houston Division.

23. **Entire Agreement:** Unless there is an existing and valid master service agreement or other written agreement that has been mutually negotiated, agreed to, and signed by the parties ("MSA", in such case said MSA shall remain the controlling document that is enforceable as between the parties), these terms and conditions shall supersede any and all prior offers, agreements, or understandings and comprises the entire agreement and contract between the parties and there are no understandings, representations, warranties or promises, verbal or otherwise, pertaining to the Work or to the Equipment, which are not incorporated in or attached to this agreement. This Quote and agreement is made with the specific understanding that language in any agreements or contracts referring to "Paid if Paid, Retention," or "No Lien Contract" shall be deemed as null and inapplicable.

CCR #004

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**004**	**Date:**	**7/18/2016**
CHANGE DESCRIPTION	Due to the corrosion issues at the League City State Highway 3 Booster Pump Station (SH3-BPS) Ground Storage Tanks (GST)s, engineering requested DN Tanks to coat all the interior stainless steel hardware and appurtenances above the minimum water level to help prevent any issues that may arise from start-up chlorination procedures or from chlorine gas effervescing from high static discharge in GST.		
AMOUNT ($):	$14,669	**ROM TIME IMPACT (DAYS):**	**0**

CDM Smith

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY: Paradis/Nicholson**

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 12/23/2015

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
	DN Tanks	1	LS								$ 13,133	$ 13,133	$ 13,133
													$ -
													$ -
CCI General Conditions													$ -
	Project Manager	8	MH	8.0	$ 101.57	$ 813	$ -	$ -	$ -	$ -	$ -	$ -	$ 813
	Construction Specialist (PE)	3	MH	3.0	$ 42.06	$ 126	$ -	$ -	$ -	$ -	$ -	$ -	$ 126
	Superintendent	8	MH	8.0	$ 74.59	$ 597	$ -	$ -	$ -	$ -	$ -	$ -	$ 597
				19.0		**$ 1,536**		**$ -**		**$ -**		**$ 13,133**	**$ 14,669**

Change Order (Subcontractor)

CDM Constructors Inc. | Effective: 10/01/2006 / Revision: 01

DN Tanks, Inc.
11 Teal Road
Wakefield, MA 01880

Owner/CDM Constructors Inc. Requested ☒
Subcontractor Suggested ☐
Other ☐

Project: 104062.004
League City South Shore Harbour BPS
2600 FM 518 East
League City, TX 77573

Change Order #: 04
Date: 5/21/15
Project #: 104062
Contract Date: 7/24/14
Task # 13205

The Contract Scope of Work is changed as follows:
Coating for all exposed SS tank appurtenances is $13,133 (task 13205)
Additional coating per CCI $1,794 (task 20000)

Total Change Order: $14,927.00

Not valid until signed by the Subcontractor and CDM Constructors Inc.

The original Contract Sum was (Lump Sum, Not-to-Exceed)	$1,491,614.00
Net change by previously authorized Change Orders	$21,116.70
The Contract Sum prior to this Change Order was.....	$1,512,730.70
The NEW Contract Sum due to this Change Order is	$1,527,657.70

The Contract Time will be (increased) (decreased) (unchanged) by 0 days.

The Terms and Conditions of the Agreement referred to above shall apply to this Change Order except to the extent expressly modified by this Change Order.

CDM CONSTRUCTORS INC.	SUBCONTRACTOR
Name:	Name: Jason Phillippi
By:	By:
Date:	Date: 05-22-2015

CCR #005

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**005**	**Date:**	**10/18/2016**
CHANGE DESCRIPTION	The City of League City requested CDM Smith to find or provide a surveyor to provide the survey for the TNMP easement. CDM Smith employed Briones to provide the survey, and the City of League City agreed.		
AMOUNT ($):	$4,500	**TIME IMPACT (DAYS):**	**83**

CDM Smith

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY: Paradis/Nicholson**

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 10/18/2016

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR MANHOURS	LABOR RATE	LABOR TOTAL	MATERIAL UNIT PRICE	MATERIAL TOTAL	EQUIPMENT UNIT PRICE	EQUIPMENT TOTAL	SUBCONTRACT UNIT PRICE	SUBCONTRACT TOTAL	TOTAL
CDM Constructors Inc Labor													
	Surveying - Briones	1	LS								$ 4,500	$ 4,500	$ 4,500
CCI General Conditions													$ -
						$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
						$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
						$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
						$ -							$ -
													$ -
				0.0		**$ -**		**$ -**		**$ -**		**$ 4,500**	**$ 4,500**

3050 Post Oak Blvd., Suite 300
Houston, Texas 77056
tel: 713-423-7300
fax: 713-840-0173

Please Remit To:
CDM Smith Inc.
15036 Collections Center Drive
Chicago, IL 60693

INVOICE

CDM Constructors, Inc.
3050 Post Oak Blvd., Suite 300
Houston, TX 77056

July 17, 2015

Invoice No. 80528963
Pay Request No. 12
CDM PN: 5000-103966

Amount Due This Invoice: **$4,500.00**

This is to invoice for Professional Engineering Services in accordance with the agreement dated April 11, 2014 between CDM Constructors, Inc. and CDM Smith Inc. for the City of League City South Shore Harbor Pump Station Improvements.

Services from May 2, 2015 through June 11, 2015.

CONTRACT ITEM	LUMP SUM FEE	PERCENT COMPLETE	AMOUNT DUE
Final Design	$ 170,350.00	100.0%	$ 170,350.00
Construction Phase Services	$ 112,150.00	95.0%	$ 106,542.50
Transient Surge Analysis	$ 17,500.00	100.0%	$ 17,500.00
Additional Construction Support Services	$ 50,000.00	100.0%	$ 50,000.00
TNMP Easement Services	$ 4,500.00	100.0%	$ 4,500.00
Total Contract Amount/Fee Earned	**$ 354,500.00**		**$ 348,892.50**
Less Amount Previously Billed			$ 344,392.50
Total Amount Due This Invoice:			**$ 4,500.00**

UPPER LIMIT	**$**	**354,500.00**
BILLED TO DATE	**$**	**348,892.50**
DOLLARS REMAINING:	**$**	**5,607.50**

BCE

4515 Briar Hollow Pl., Suite 106
Houston, Texas 77027
(713) 539-6408 / (713) 583-5306 - fax

Invoice

Date	Invoice #
5/18/2015	4502

Bill To
CDM 3050 Post Oak Blvd., Suite 300 Houston, Texas 77056 Attn: Brent Nicholas, P.E.

H065684

Due Date
6/1/2015

Quantity	Description	Rate	Amount
	CITY OF LEAGUE CITY, TEXAS SOUTH SHORE HARBOR BOOSTER PUMP STATION IMPROVEMENTS		
1	PROFESSIONAL SURVEYING SERVICES: - Metes & Bounds with Exhibit for TNMP Easement	4,000.00	4,000.00

CHARGE TO MUST BE COMPLETED
CLIENT NO. PROJECT NO. TASK FUTURE
5000 103966 G5 TNMP EASEMENT
APPROVAL
DATE WRK GRP#
GL ACCT (FOR ACCTG. USE ONLY)
05-31-15

now task

Tax ID No.: 20-0763344	Total	$4,000.00

Paradis, Jennifer L.

From: Peters, Jeffrey <PetersJS@cdmsmith.com>
Sent: Wednesday, May 06, 2015 4:43 PM
To: Morrison, Bobby
Cc: Lothrop, John; Hooks, Jody
Subject: RE: [External] FW: SSH - TNMP Easement 2600 E FM 518

Yes, sir. Will get that started ASAP.

From: Morrison, Bobby [mailto:Bobby.Morrison@leaguecity.com]
Sent: Wednesday, May 06, 2015 4:42 PM
To: Peters, Jeffrey
Cc: Lothrop, John; Hooks, Jody
Subject: RE: [External] FW: SSH - TNMP Easement 2600 E FM 518

Yes please.

Bobby Morrison
Senior Project Manager
Engineering
City of League City
1505 Dickinson Ave.
League City, Texas 77573
281-554-1439 - Direct

From: Peters, Jeffrey [mailto:PetersJS@cdmsmith.com]
Sent: Wednesday, May 06, 2015 4:29 PM
To: Morrison, Bobby
Cc: Lothrop, John; Hooks, Jody
Subject: RE: [External] FW: SSH - TNMP Easement 2600 E FM 518

They can. Estimate is not to exceed $5K. They think less. Should I get them started?

From: Morrison, Bobby [mailto:Bobby.Morrison@leaguecity.com]
Sent: Monday, May 04, 2015 3:17 PM
To: Peters, Jeffrey
Cc: Lothrop, John; Hooks, Jody
Subject: RE: [External] FW: SSH - TNMP Easement 2600 E FM 518

Jeff,

Did you ever find out in Briones has time to generate a metes and bound and drawing exhibit for this TNMP easement? Should I take care of this with Briones, myself, or; can CDM handle. Either way it will be funded out of the CMAR contingency.

From: Peters, Jeffrey [mailto:PetersJS@cdmsmith.com]
Sent: Friday, April 24, 2015 6:48 AM
To: Morrison, Bobby
Cc: Lothrop, John; Hooks, Jody
Subject: RE: [External] FW: SSH - TNMP Easement 2600 E FM 518

Yes sir. I'm am out today, but will have my phone with me and will forward relevant info as soon as I get it. Thanks!

From: Morrison, Bobby [mailto:Bobby.Morrison@leaguecity.com]
Sent: Thursday, April 23, 2015 3:00 PM
To: Peters, Jeffrey
Cc: Lothrop, John; Hooks, Jody
Subject: FW: [External] FW: SSH - TNMP Easement 2600 E FM 518

Jeff,

We are in need of acquiring a metes and bounds and drawing exhibit for an electrical distribution easement at the South Shore Harbour Booster Station. Based on GeoSurv's current work load it will be 3-4 weeks for them to provide. With this email and attachments, can you see how quick Briones can provide this drawing exhibit and metes and bounds? If quicker than 3-4 weeks, will you ask them to provide me a cost proposal.

Thanks for your assistance,

From: Temple, Bill [mailto:Bill.Temple@tnmp.com]
Sent: Thursday, November 06, 2014 9:19 AM
To: Morrison, Bobby
Subject: RE: [External] FW: SSH - TNMP Easement 2600 E FM 518

Bobby,
Per our conversation, I have been meeting with Arron Mollohan (site super.).
We have adjusted the transformer location, to meet minimum 10 foot clearance, from the transformer, to the building.
I have attached a map, denoting the Transformer location & the New Dip Pole location.
It has only shifted slightly.

Plan is still as follows:

1. TNMP will install a new underground Dip Pole, 25 feet east of the existing pole, on FM 518.
2. Arron will install 4-3" primary duct bank, from pole to Transformer.
3. He will form Transformer Pad & CT METER, AT THE TRANSFORMER.
4. City will need to provide a 16 foot wide Electrical Utility Easement, to TNMP.

I would suggest waiting on the easement draft, until the Duct Bank Is installed, & the Pole is set. Then describe the easement.
I have staked the pole location. However, if we encounter any obstacles, during installation, the pole may need to shift.

EASEMENT: Minimum width 16 feet,
Length: draw a centerline, from new pole, to transformer location, 10 feet passed the transformer (see attachment)
NOTE BUILDING CANNOT BE IN THE EASEMENT.
I have also attached a blank TNMP EASEMENT TEMPLATE. Please use this template.
You will also need to make a metes & bound description & a Sketch, of the easement, on the property

TITLE THE METERS & BOUNDS PAGE: **SCHEDULE A**, **A 16' WIDE ELECTRICAL UTILITY EASEMENT, METES & BOUNDS DESCRIPTION OF 2800 E FM 518.**
SKETCH: include address: **2800 E FM 518**
Include the following sentence on the drawing: **THE SKETCH ATTACHED HERE TO IS INCORPORTATED BY REFERENCE, AS A PART OF THIS ELECTRIC UTILITY EASEMENT.**

You can send me the easement for proofing, before recording.

Please contact me if you have any questions.
Regards,
Bill Temple
281-996-0453 ext. 7120

From: Morrison, Bobby [mailto:Bobby.Morrison@leaguecity.com]
Sent: Wednesday, November 05, 2014 4:56 PM
To: Temple, Bill
Cc: Jennifer L. Paradis; Clarke, Mike; Mollohan, D. Aaron; Bowery, Cecil
Subject: [External] FW: SSH - TNMP Easement 2600 E FM 518

Bill,

As you are aware, TNMP has developed an electrical service plan for the subject which includes a pad mounted transformer at a new location. Since it has been a while, can we meet onsite to discuss the location and the easement requirements? I am available tomorrow afternoon, Friday morning, or anytime next week, except Tuesday.

Bobby Morrison
Senior Project Manager
Engineering
City of League City
1505 Dickinson Ave.
League City, Texas 77573
281-554-1439 - Direct

CCR #006

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**006**	**Date:**	**12/23/2015**
CHANGE DESCRIPTION	Contract section 8.4.1 states that there are a total of (32) calendar day weather impact days. From Notice to Proceed until July 22, 2015 there have been a total of 56 weather days. This is a total of 24 weather days CDM Constructors Inc. (CCI) is requesting a time extension from September 1, 2015 to October 5, 2015. Please see attached monthly letters documenting the inclement weather days. According to the contract, CCI is only claiming the additional days, not any compensation. Weather days are concurrent with CCR 005, CCR 008 and CCR 009.		
AMOUNT ($):	$0	**ROM TIME IMPACT (DAYS):**	**0**

CDM Smith

CCR ESTIMATE WORKSHEET

OWNER: League City	**PREPARED BY:** Paradis/Nicholson
PROJECT: League City SSH Booster Pump Station Improvements	**DATE:** 12/23/2015
LOCATION: League City, Texas	**Project No:** 104062

	DESCRIPTION	QTY	UNIT	GENERAL CONDITIONS MANHOURS	GENERAL CONDITIONS RATE	GENERAL CONDITIONS TOTAL	LABOR MANHOURS	LABOR RATE	LABOR TOTAL	MATERIAL UNIT PRICE	MATERIAL TOTAL	EQUIPMENT UNIT PRICE	EQUIPMENT TOTAL	SUBCONTRACT UNIT PRICE	SUBCONTRACT TOTAL	TOTAL
CDM Constructors Inc Labor																
			LF								$ -					$ -
			LS												$ -	$ -
			MH													$ -
CCI General Conditions																$ -
	Delay- Extended General Conditions@$97,283/month	0	W.Days	0.0	$ 4,632.52	$ -				$ -	$ -	$ -	$ -	$ -	$ -	$ -
										$ -	$ -	$ -	$ -	$ -	$ -	$ -
										$ -	$ -	$ -	$ -	$ -	$ -	$ -
	NOT CLAIMING			**0.0**		**$ -**	**0.0**		**$ -**		**$ -**		**$ -**		**$ -**	**$ -**

CCR #007

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**007**	**Date:**	**12/23/2015**
CHANGE DESCRIPTION	During the City of League City Building Department review of the South Shore Harbour Booster Pump Station 100% Drawings, the City Building Officials requested that an external power disconnect shall be provided as per City of League City adopted Building Code. This was not included in the GMAX price.		
AMOUNT ($):	$56,190	**ROM TIME IMPACT (DAYS):**	**0**

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY:** Paradis/Nicholson

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 12/23/2015

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
	Disconnect Switch Installed by CCI Electrical	1	LS	0.0		$ -	$ -	$ -	$ -	$ -	$ 55,402	$ 55,402	$ 55,402
				0.0		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
				0.0		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCI General Conditions													$ -
	Project Manager	4	MH	4.0	$ 101.57	$ 406	$ -	$ -	$ -	$ -	$ -	$ -	$ 406
	Construction Specialist (PE)	2	MH	2.0	$ 42.06	$ 84	$ -	$ -	$ -	$ -	$ -	$ -	$ 84
	Superintendent	4	MH	4.0	$ 74.59	$ 298	$ -	$ -	$ -	$ -	$ -	$ -	$ 298
				10.0		**$ 788**		**$ -**		**$ -**		**$ 55,402**	**$ 56,190**

CITY OF LEAGUE CITY, TX
CITY OF LEAGUE CITY SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CITY PROJECT ID NO.: WT1102

DESIGN REVIEW COMMENTS AND RESPONSES LOG

Comments Received from City of League City Development Review Committee			
Comment No.	Reviewer	Drawing /Sheet No.	Spec Sec.
1	**City of League City - DRC**	Title Sheet	
Comment:	a. Provide tree disposition plan or letter from a certified arborist, licensed surveyor, or landscape architect certifying that there are no protected trees on the site.		
Response:	**a. There are no trees on the site; please refer to the attached site photos and aerial.**		
2	**City of League City - DRC**	Title Sheet	
Comment:	a. League City phone number is (281)-554-1439.		
Response:	**a. This is an older City cover sheet which has been replaced as of Monday May 12, 2014 via an email received at 3:52 PM from Alan R. Nichols Engineering Technician City of League City.**		
3	**City of League City - DRC**	Title Sheet	
Comment:	a. The review signatures block is old. Update.		
Response:	**a. This is an older City cover sheet which has been replaced as of Monday May 12, 2014 via an email received at 3:52 PM from Alan R. Nichols Engineering Technician City of League City.**		
4	**City of League City - DRC**	Drawing C-3	
Comment:	a. Only see one inlet b. Drainage patterns/ divides c. Swales d. Elevations		
Response:	**a. This was a preliminary drawing for use in identifying the GMAX pricing for the Contractor. Attached in the revised submittal are Drawings GS-C-7, 8, 9, 10, 11, 12, and 13 which address the missing civil site design aspects.**		
5	**City of League City - DRC**	Drawing GS-C-4	
Comment:	a. Provide information and details on the package grinder lift station.		
Response:	a. **Through additional Value Engineering; it has been determined that a gravity line connection can be made directly to the sanitary sewer on the south side of FM 518. The revised submittal drawing package illustrates this on Drawing GS-C- 13. Thus, details on a grinder pump lift station are no longer needed.**		
6	**City of League City - DRC**	GS-C-4	
Comment:	a. Need sanitary information and standard details		
Response:	**a. Sanitary sewer drawings are included in the resubmittal with the STD-C-series drawings.**		

CITY OF LEAGUE CITY, TX
CITY OF LEAGUE CITY SOUTH SHORE HARBOUR BOOSTER PUMP STATION

DESIGN REVIEW COMMENTS AND RESPONSES LOG

Comments Received from City of League City Development Review Committee			
Comment No.	Reviewer		
7	**City of League City - DRC**	GS-C-4	
Comment:	a. Remove floor drains from chemical feed rooms		
Response:	**a. To comply with the 2009 International Fire Code, CDM Smith has revised the design of the Chemical Rooms to include containment sumps with recessed flooring and grating to be flush with the building TOC. If there is a spill a manually controlled sump pump has been added to allow operators to direct the contained spilled volume to a certified waste truck hauler via quick coupling on the pump discharge. If normal wash down wastewater, the pump can be valved to the sanitary sewer. A failsafe floor drain overflow has been added to prevent any catastrophic "spill" or event from draining out to the open environment. Please note the containment volume has sufficient capacity to contain the intended drum containers. This drain line is segregated from the building sanitary drains.**		
8	**City of League City - DRC**	GS-C-5, BPS-M-01, H-2	
Comment:	a. Change pipe tag from 30" to 36".		
Response:	**a. This is an error and will be revised.**		
9	**City of League City - DRC**	FMS-M-1	
Comment:	a. Is this style of coupling rated for use underground? Would prefer solid sleeve or maxi stop		
Response:	**a. CDM Smith has used these types of coupling before in underground service with appropriate corrosion control measures. Will investigate City suggestion to see if same degree of deflection can be obtained.**		
10	**City of League City - DRC**	BPS-M-01 BPS-M-02	
Comment:	a. City F.H. detail, Use city detail where applicable.		
Response:	**a. There is a problem with the City website when we try to obtain City Standard Details; we will need to incorporate this into an addendum.**		

CITY OF LEAGUE CITY, TX
CITY OF LEAGUE CITY SOUTH SHORE HARBOUR BOOSTER PUMP STATION

DESIGN REVIEW COMMENTS AND RESPONSES LOG

Comments Received from City of League City Building Permit Review			
Comment No.	Reviewer	Drawing /Sheet No.	Spec Sec.
1	**City of League City Building Permit Review**	GS-C-4	
Comment:	a. Prior to release of this permit, the general and all sub-contractor will have to be signed onto this permit and registered to do work in the City of League City.		
Response:	**a. The City selected CDM Constructors Inc. who has performed several projects for the City in the past several years. Will comply with registration on this project once subcontractors have been selected.**		
2	**City of League City Building Permit Review**	GS-C-5, BPS-M-01, H-2	
Comment:	a. Provide a full size Digital Set of plans for review.		
Response:	**a. The resubmittal includes a full size set of Drawings that are signed and sealed by a professional engineer registered in the State of Texas.**		
3	**City of League City Building Permit Review**	FMS-M-1	
Comment:	a. Provide engineer sealed metal building plans from the building manufacturer (for final permit approval).		
Response:	**a. Once the pre-engineered metal building manufacturer is selected, signed and sealed building shop drawings will be submitted to the Building Permit Review Department for review.**		
4	**City of League City Building Permit Review**	BPS-M-01 BPS-M-02	
Comment:	a. All exterior glazing is to meet impact resistance requirements for windborne debris regions (1609.1.2 IBC). Specifications and or notes should reference ASTM E1996 and ASTM E 1886		
Response:	**a. The Building has no exterior window glazing but we have provided Glass Masonry Unit, which meets large missile impact tests referenced in the International Building Code, in accordance with ASTM E 1886 and ASTM E 1996.**		
5	**City of League City Building Permit Review**	STD-M-8	
Comment:	a. All outdoor mounted equipment to resist uplift in 120 Mph. wind event. (COLC 22-35) Add a note to mechanical details.		
Response:	**a. This requirement can be found in the resubmittal on Drawing GS-S-1. Where outdoor equipment is used the respective specification section will require wind loading compliance.**		

CITY OF LEAGUE CITY, TX
CITY OF LEAGUE CITY SOUTH SHORE HARBOUR BOOSTER PUMP STATION

DESIGN REVIEW COMMENTS AND RESPONSES LOG

Comments Received from City of League City Building Permit Review			
Comment No.	Reviewer	Drawing /Sheet No.	Spec Sec.
6	**City of League City Building Permit Review**	STD-M-8	
Comment:	a. Electrical service disconnect is required at exterior of building at the service entrance Per. City ordinance (Ch. 22-60 (e)). Remote actuation of main disconnect inside the building will not be accepted as addressing this requirement.		
Response:	**a. Electrical service is anticipated to be a pad mounted transformer. The scheduled service will be 5-sets of 4"conduit (C) with 3#500KCMIL phase conductors and 1#4/0 Grounded Service Conductor. If a service entrance disconnect is utilized, it would have 10-4" Conduits > 30 #500KCMIL phase conductors, 5#4/0 Grounded Service Conductors and 5#4/0 Grounding conductors. That's a lot of real estate and a system liability. CDM Smith Electrical Engineering staff can discuss at your convenience. It is CDM Smith's opinion that this type of installation is waived for "Industrial Locations" where large amounts of power are required because it doesn't make sense.**		
7	**City of League City Building Permit Review**		
Comment:	a. All projects greater than 250 S.F. in size, or modifying a structure greater than 250 S.F., will be required to provide proof of windstorm certification with the state at the final inspection. A copy of the WPI-2–BC-5 filed by the Engineer providing windstorm services or WPI-8 will be accepted at the final inspection as proof of TDI Windstorm Certification. No final occupancy will be granted without meeting this requirement.		
Response:	**a. The CDM Smith Design Team and CDM Constructors Inc. are very familiar with this requirement. Obtaining this certification will be obtained prior to request for final occupancy.**		
8	**City of League City Building Permit Review**		
Comment:	a. Per Chapter 50 Flood of city ordinance, the lowest finished floor elevation of all structures must be a minimum of 18 inches above the highest adjacent grade or crown of street. Provide a form survey with elevation information on site at the foundation inspection for verification.		
Response:	**a. The City provided the survey to CDM Smith. According to our data; see Drawing GS-C-13, the crown of the street appears to be at elevation 15.0 feet. Our Building TOC is set at 16.50 feet. There is some 15.5 ft contours on site; if comment intends "or" we would need to revise and raise 6-inches. Please advise.**		

CITY OF LEAGUE CITY, TX
CITY OF LEAGUE CITY SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CITY PROJECT ID NO.: WT1102

DESIGN REVIEW COMMENTS AND RESPONSES LOG

Comments Received from City of League City Building Permit Committee			
Comment No.	Reviewer	Drawing /Sheet No.	Spec Sec.
1	**City of League City – Building Permit**		
Comment:	Prior to release of this permit, the general and all sub-contractors will have to be signed onto this permit and registered to do work in the City of League City. Mechanical sub does not need to be signed on until approval of Design Package 2.		
Response:	**CDM Constructors, Inc. (CCI) will comply.**		
2	**City of League City – Building Permit**		
Comment:	Provide signed letters from the third party Windstorm consultants for this project, stating that they will be providing review, Inspection, and ultimate certification on this project.		
Response:	**CDM Constructors, Inc. will be obtaining 3rd party Windstorm consultants for the project.**		
3	**City of League City – Building Permit**		
Comment:	All exterior glazing is to meet impact resistance requirements for windborne debris regions (1609.1.2 IBC). Specifications and or notes should reference ASTM E1996 and ASTM E 1886.		
Response:	**The Building has no exterior window glazing but we have provided Glass Masonry Unit, which meets large missile impact tests referenced in the International Building Code, in accordance with ASTM E 1886 and ASTM E 1996.**		
4	**City of League City – Building Permit**	STD-E-2	
Comment:	Provide construction specification to meet 120 Mph. wind load for the proposed light pole standards (Add note to detail if necessary).		
Response:	**The following note has been added to Detail M on Drawing STD-E-2: "Light Pole and foundation shall be designed according to the 2006 IBC. Wind loading shall be 120 MPH, Exposure C and Importance Factor I=1.15."**		
5	**City of League City – Building Permit**		
Comment:	Provide engineer sealed metal building plans from the building manufacturer (for until approval of Design Package 2).		
Response:	**The pre-engineered metal building drawings and details signed and sealed by a professional engineer registered in the State of Texas will be available at a later date. They will be submitted to the City Permit Review Department once the shop drawings have been developed and ready for review.**		

6	**City of League City – Building Permit**		
Comment:	Electrical service disconnect is required at exterior of building at the service entrance Per. City ordinance (Ch. 22-60 (e)). Remote actuation of main disconnect inside the building will not be accepted as addressing this requirement. (Please explain typ. procedure to fully De-energize this facility).		
Response:	**The design has been revised to reflect an exterior disconnect as per the City's request.**		

Comments Received from City of League City Development Review Committee			
Comment No.	Reviewer	Drawing /Sheet No.	Spec Sec.
7	**City of League City – DRC**		
Comment:	All outdoor mounted equipment to resist uplift in 120 Mph. wind event. (COLC 22-35) Add a note to mechanical details.		
Response:	**The outdoor HVAC condenser units have been outfitted with restraint straps to resist the design wind loading. Other equipment is covered by the specifications relative to this requirement.**		
8	**City of League City – DRC**		
Comment:	Provide Mechanical Information for proposed A/C systems in Booster Pump Building.		
Response:	**This information is provided in Design Package No.2.**		
10	**City of League City – DRC**		
Comment:	All projects greater than 250 S.F. in size, or modifying a structure greater than 250 S.F., will be required to provide proof of windstorm certification with the state at the final inspection. A copy of the WPI-2–BC-5 filed by the engineer providing windstorm services or WPI-8 will be accepted at the final inspection as proof of TDI Windstorm Certification. No final occupancy will be granted without meeting this requirement.		
Response:	**CDM Constructors, Inc. is familiar with this requirement relative to City of League City work and will be obtaining 3rd party Windstorm consultants for the project.**		
11	**City of League City – DRC**	GS-C-4	
Comment:	Per Chapter 50 Flood of city ordinance, the lowest finished floor elevation of all structures must be a minimum of 18 inches above the highest adjacent grade or crown of street. Provide a form survey with elevation information on site at the foundation inspection for verification.		
Response:	**The design drawings have been revised to reflect a new Pump Building finished floor elevation to comply with the stated requirement. The electrical transformer pad and Flow Metering Station pad have been revised as well to comply.**		

Notes:
The plans submitted are incomplete for full approval, but addressing items 1-4 will meet the requirements to Approve Design Package 1.
Design Package 1 will have to be approved by all signatories on cover sheet before the Building Permits for Package 1 will be released for construction.

CITY OF LEAGUE CITY, TX
CITY OF LEAGUE CITY SOUTH SHORE HARBOUR BOOSTER PUMP STATION

DESIGN REVIEW COMMENTS AND RESPONSES LOG

Comments Received from City of League City Building Permit Committee			
Comment No.	Reviewer	Drawing /Sheet No.	Spec Sec.
1	**City of League City – Building Permit**	GS-C-13	
Comment:	Sanitary sewer service has a 10 degree deflection at the Clean Out at the property line, not sure how this is going to be accomplished. Need to consider building a modified Clean Out/Manhole or something of that nature to accommodate this deflection.		
Response:	**The design has been modified to provide a manhole in lieu of a cleanout.**		
2	**City of League City – Building Permit**	STD-C-3	
Comment:	Use the City's Valve and Box Detail and Fire Hydrant Detail, Also need to make sure that the 2" Meter Box Detail is the most current.		
Response:	**CDM Smith has obtained the latest City of League City details from the City (with City assistance navigating the website) and has revised the Drawings to include the latest City details. They have also been coordinated with CDM Smith specifications.**		
3	**City of League City – Building Permit**	STD-C-4	02821
Comment:	Driveway access gate needs to be a track and wheel style gate not the cantilevered slide on shown.		
Response:	**CDM Smith has revised the main access gate to accommodate City request to incorporate a track and wheel style gate.**		
4	**City of League City – Building Permit**	FMS-M-1	15120
Comment:	Restraint Rods on couplings are not shown consistently; same on sheets FMS-M-2 and 3.		
Response:	**The FMS-M-series Drawings have been modified to correct consistency on tie rod restraint representation.**		
5	**City of League City – Building Permit**	BPS-M-1	
Comment:	Chemical Rooms; there is some concerns about the accessibility of the isolation valves and the operation of the sump pumps as well as the quick connects. In the event of a leak you have to enter a hazardous confined space to make any connection and do any operations.		
Response:	**The installation as presently designed is fully compliant with the 2009 International Plumbing Code and the 2009 International Fire Code as well as patterned after successful recent CDM Smith projects. Containment is below walkway surface and rooms are fully ventilated. The Polyphosphate and Liquid Ammonium Sulfate chemicals are non-fuming and low hazard. The Chlorine Room includes automatic chlorine cylinder shut-off valves as well as a scrubber to treat any catastrophic 150 lb. cylinder leak.**		

DESIGN REVIEW COMMENTS AND RESPONSES LOG

6	**City of League City – Building Permit**	BPS-M-2, 3, 4, 5, 6	02616, 02626
Comment:	Chemical feed water service line as well as chemical lines needs to be wall mounted and not brought in nor taken out under the building slab as being shown. Would prefer lines to be taken through wall penetrations.		
Response:	**CDM Smith has revised the Drawings to reflect City preference for no below building water lines or chemical lines. All of this piping now penetrates the lower wall.**		
7	**City of League City – Building Permit**	STD-M-11	02615
Comment:	Pipe casing detail, need to make sure that pipe casing detail meets or exceeds City pipe casing detail. Sewer service crossing on 518 will be PVC not welded steel.		
Response:	**This detail is on the STD-C sheets and the one represented on Drawing STD-M-11 has been removed to avoid confusion.**		

External Disconnect Switch Quote								
Final Pricing	**Calculated (%)**	**Calculated ($)**	**Variance (%)**	**Modified ($)**	**Modified (%)**	**% Final Price**	**Alarm**	**Code**
Database Material (Extension)		15,731.91		15,731.91		28.396		
Material Escalation								
Quoted Material (Extension)		0.01		0.01				
Quoted Material		19,510.00		19,510.00		35.215	On	
Material Tax								
Material Total		35,241.92		35,241.92		63.611		
Direct Labor		7,992.37		7,992.37		14.426		
Incidental Labor								
Labor Factoring								
Labor Escalation								
Indirect Labor		2,902.53		2,902.53		5.239		
Labor Tax								
Labor Total		10,894.90		10,894.90		19.665		
Subcontractors								
General Expenses		1,050.00		1,050.00		1.895		
Equipment		728		728		1.314		
Total Cost		47,914.82		47,914.82		86.485		
Database Material Overhead	8	1,258.55		1,258.55	8	2.272		
Quoted Material Overhead	3	585.3		585.3	3	1.056		
Labor Overhead	25	2,723.73		2,723.73	25	4.916		
Subcontractors Overhead								
General Expenses Overhead								
Equipment Overhead								
Adjustment Overhead								
Total Overhead	9.533	4,567.58		4,567.58	9.533	8.244		
Database Material Markup	4	679.62		679.62	4	1.227		
Quoted Material Markup	2	401.91		401.91	2	0.725		
Labor Markup	13.5	1,838.52		1,838.52	13.5	3.318		
Subcontractors Markup								
General Expenses Markup								
Equipment Markup								
Adjustment Markup								
Total Markup	5.564	2,920.05		2,920.05	5.564	5.271		
Adjustment #1								
Adjustment #2								
Adjustment #3								
Final Adjustment								
Selling Price		55,402.45		55,402.45		100		
GST #								
Final Price		**55,402.45**		**55,402.45**			On	

CCR #008

CDM Smith

LEAGUE CITY
SOUTH SHORE HARBOUR PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City		
PROJECT NAME:	South Shore Harbour	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	8	**Date:**	**1/21/2016**
CHANGE DESCRIPTION	As detailed in the issue for construction drawings, the Polyphosphate injection is located only at the distribution piping. The City of League City requested to have the Polyphosphate injection relocated to the Water Well piping, as they will not utilize the Poly injection at distribution. A DCR was submitted to CDM Smith, and revised drawings were issued. CCI will provide pricing, and will start on the work once The COLC has reviewed and approved the change order. The costs associated with this relocation are materials, labor, GCs, and equipment.		
AMOUNT ($):	$6,756	**ROM TIME IMPACT (DAYS):**	**0**

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY:** Paradis/Nicholson

PROJECT: League City SSH Booster Pump Station | **DATE:** 1/21/2016

LOCATION: League City Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
	Mini Excavator	2	DAY						$ 705	$ 1,410			$ 1,410
	Field Labor (3 guys, 2 days)	48	MH	48	$ 55	$ 2,640	$ 1,822	$ 1,822					$ 4,462
CCI General Conditions													
	Project Manager	2	MH	2.0	$ 101.57	$ 203	$ -	$ -	$ -	$ -	$ -	$ -	$ 203
	Construction Specialist (PE)	2	MH	2.0	$ 42.06	$ 84	$ -	$ -	$ -	$ -	$ -	$ -	$ 84
	Superintendent	8	MH	8.0	$ 74.59	$ 597	$ -	$ -	$ -	$ -	$ -	$ -	$ 597
													$ -
				0.0		**$ 3,524**		**$ 1,822**		**$ 1,410**		**$ -**	**$ 6,756**

United Rentals

BRANCH 756
1211 EAST MAIN ST
LEAGUE CITY TX 77573-4159
281-332-8982
281-316-1172 FAX

RENTAL RETURN INVOICE

125063401-002

Customer #	: 1359979
Invoice Date	: 02/06/15
Rental Out	: 12/17/14 07:43 AM
Rental In	: 02/05/15 08:00 AM
UR Job Loc	: 18530 HIGHWAY 3, WEB
UR Job #	: 1
Customer Job ID:	
P.O. #	: 93130
Ordered By	: AARON MOLLOHAN
Written By	: TAMMY WALKER
Salesperson	: MICHAEL PAVUR

Job Site

WEBSTER BOOSTER STATION
18530 HIGHWAY 3
WEBSTER TX 77598

Office: 303-383-2377 **Cell:** 713-817-2784

CDM CONSTRUCTORS INC
555 17TH ST STE 1100
DENVER CO 80202-3910

Invoice Amount: $4,670.02

Terms: Due Upon Receipt
Payment options: Contact our credit office 212-333-6600 Ext. 84879
REMIT TO: UNITED RENTALS (NORTH AMERICA),INC.
PO BOX 840514
DALLAS TX 75284-0514

RENTAL ITEMS:

Qty	Equipment	Description	Minimum	Day	Week	4 Week	Amount
1	10003796	EXCAVATOR 25000-29999# Make: CASE Model: CX130B Serial: NBSAD1580 Meter out: 2575.00 Meter in: 2678.30		705.00	2038.00	4111.00	4,111.00
1	905/5025	EXCAVATOR BUCKET 24"	5.33	5.33	23.00	80.00	74.33
						Rental Subtotal:	4,185.33

SALES/MISCELLANEOUS ITEMS:

Qty	Item		Price	Unit of Measure	Extended Amt.
1	TX UNIT PROPERTY TAX	[DRSURTX/MCI]	8.846	EACH	8.85
1	TEXAS DIESEL TAX	[TXDSL/MCI]	83.288	EACH	83.29
1	ENVIRONMENTAL CHARGE	[ENV/MCI]	53.440	EACH	53.44
				Sales/Misc Subtotal:	145.58
				Agreement Subtotal:	4,330.91
				Tax:	339.11
				Total:	4,670.02

COMMENTS/NOTES:

Unit moved from pump
opened new contrac
moved from pump sta
station 01-08-15.tw

FINAL BILL: 1/14/15

PROJECT 93130
TASK 20380
WORKGROUP _____ G/L# _____
EXP.TYPE (CIRCLE ONE) S / M / O / R / ICA / E
COMMITTED COST (CIRCLE ONE) SUB PO
COMMIITMENT# _____
VENDOR # (PROCUREMENT) _____
APPROVED BY _____
ADDITIONAL APPROVAL (IF NEEDED)
_____
HOLD PAYMENT FOR _____
SPECIAL PMT. TERMS _____ (IF NOT NET 42)

SAN ANTONIO-E TX
13790 Judson Rd
San Antonio TX 78233
Telephone: 210-657-1632
Fax: 210-657-2321

Line	Quantity	Sell Per	Description	Net Price	Extended Price

HD SUPPLY WATERWORKS

7620 GRISSOM ROAD
SAN ANTONIO, TEXAS 78251
PHONE: 210-684-1150
FAX: 210-684-5521
* AND *
13790 JUDSON ROAD
SAN ANTONIO, TEXAS 78233
PHONE: 210-657-1632
FAX: 210-657-2321

PROJECT: SSH-BPS RFI-041

LOCATION: SAN ANTONIO,TEXAS

BID DATE:

ENGINEER:

BID PER -------- SPECIFICATION

****

** PVC PIPE QUOTED HEREIN **
** IS OFFERED SUBJECT TO **
** AVAILABILITY. PRICING **
** IS SUBJECT TO CHANGE. **

SAN ANTONIO-E TX
13790 Judson Rd
San Antonio TX 78233
Telephone: 210-657-1632
Fax: 210-657-2321

Line	Quantity	Sell Per	Description	Net Price	Extended Price
430	1	EA	317-111006-000 10X3/4IP SADDLE EPOXY W/SS STRAPS 10.75-11.10	125.31	125.31
440	20	FT	3/4X3 SCH80 PVC DUAL CN PIPE PIPE SOLD PER FULL JOINT	7.68	153.60

SAN ANTONIO-E TX
13790 Judson Rd
San Antonio TX 78233
Telephone: 210-657-1632
Fax: 210-657-2321

Special Instructions

PLEASE NOTE:

PRICE IS LESS FREIGHT

PLEASE INCLUDE 200.00 EST FREIGHT FEES.

FREIGHT TERMS MAY CHANGE ONCE FOOTAGE

IS DETERMINED.

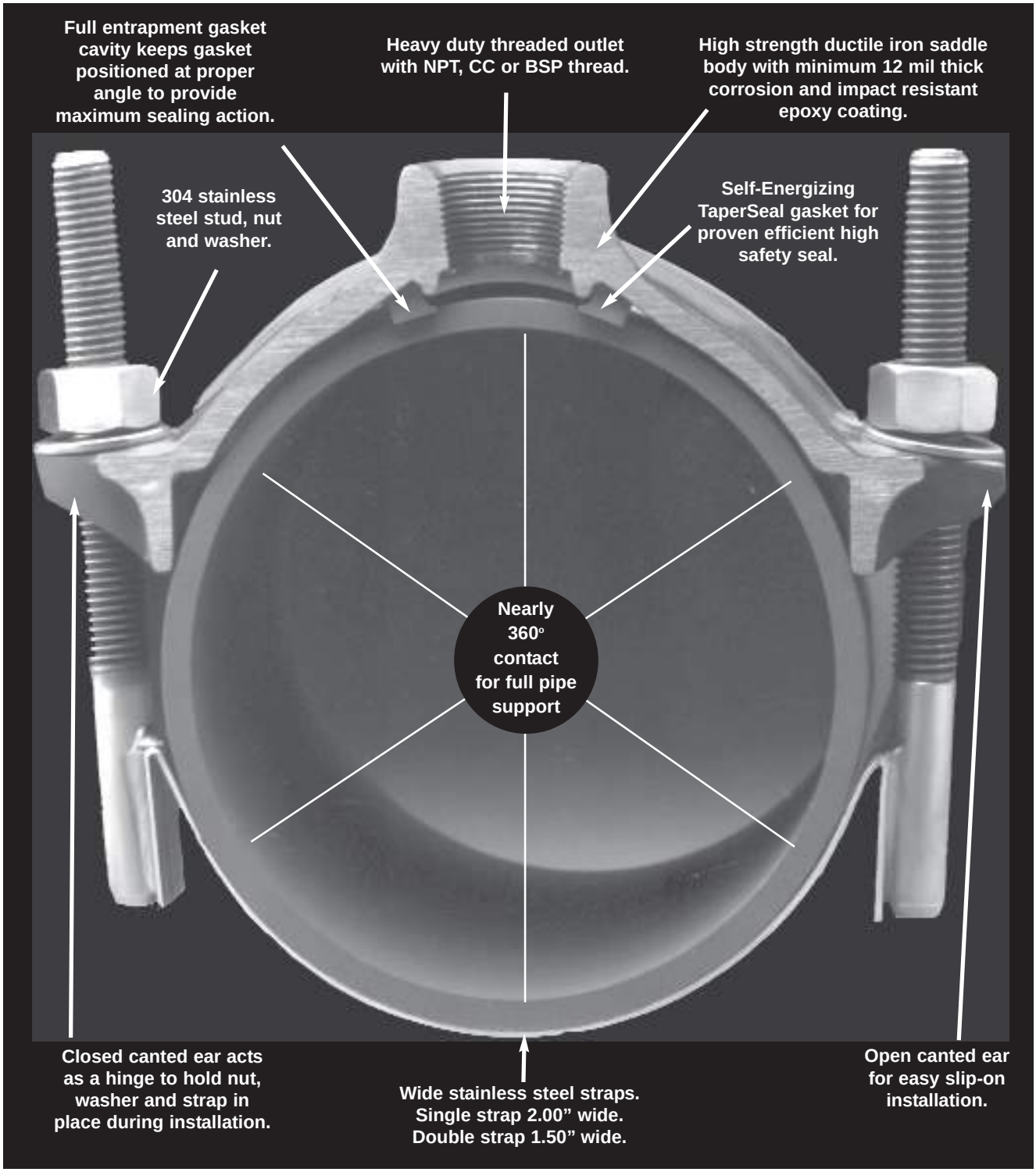
Subtotal:	**278.91**
Tax:	**.00**
Bid Total:	**278.91**

315 & 317 TaperSeal™ Service Saddles

Ductile Iron Body with Stainless Steel Straps

ANSI/NSF® 61 Listed

It's not just another service saddle; It's a better one, with the perfect combination of corrosion protection and time-proven design features to provide years of dependable service.



317 Service Saddles
Flexi-Coat® Epoxy, Ductile Iron Body
Double Strap - Stainless Steel
ANSI/NSF® 61 Listed

3/4" and 1" NPT Taps

Standard			Catalog Number		Ctn. Qty	Metric		
Nom. Sizes Inches	O.D. Range Inches	Wt. Each Lbs.	3/4" NPT/20 mm	1" NPT/25 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
1-1/4-1-1/2	1.61-1.92	3	317-00019206-000	317-00019208-000	6	32-40	41-48	1
2	2.35-2.56	3	317-00025606-000	317-00025608-000	6	50	60-65	1
2-1/4-2-1/2	2.44-2.91	3	317-00029106-000	317-00029108-000	6	57-65	62-73	2
3	2.97-3.54	4	317-00035406-000	317-00035408-000	6	80	76-89	2
3-4	3.74-4.13	6	317-00041306-000	317-00041308-000	6	80-100	95-105	3
*4	4.40-4.50	6	317-00045006-000	317-00045008-000	6	100	112-114	3
*4	4.40-4.80	6	317-00048006-000	317-00048008-000	6	100	112-122	3
4-5	4.74-5.63	6	317-00056306-000	317-00056308-000	6	100-125	121-143	3
*6	5.94-6.70	6	317-00066306-000	317-00066308-000	6	150	151-170	3
*6	5.94-6.90	6	317-00069006-000	317-00069008-000	4	150	151-175	3
6	6.84-7.60	7	317-00076006-000	317-00076008-000	4	150	174-193	3
6-8	7.69-8.72	8	317-00087206-000	317-00087208-000	4	150-200	195-221	4
*6-8	7.69-9.05	8	317-00090506-000	317-00090508-000	4	150-200	195-230	4
8-10	8.54-10.10	8	317-00101006-000	317-00101008-000	4	200-250	217-256	4
*10	10.75-11.10	9	317-00111006-000	317-00111008-000	4	250	273-282	4
10-12	10.64-12.12	10	317-00121206-000	317-00121208-000	4	250-300	271-307	4
*12	12.75-13.20	9	317-00132006-000	317-00132008-000	4	300	324-335	6
12-14	12.62-14.32	15	317-00143206-000	317-00143208-000	4	300-350	321-363	7
12-14	14.73-15.65	18	317-00156506-000	317-00156508-000	1	300-350	375-397	8
14-16	15.95-17.25	19	317-00172506-000	317-00172508-000	1	350-400	406-438	9
16	17.25-17.80	19	317-00178006-000	317-00178008-000	1	410	438-452	9
16-18	17.40-18.88	19	317-00188806-000	317-00188808-000	1	400-450	442-479	9
*18	19.38-19.68	19	317-00195006-000	317-00195008-000	1	450	492-500	9
*20	21.55-21.65	19	317-00216006-000	317-00216008-000	1	500	547-550	9
24	25.75-25.85	30	317-00258006-000	317-00258008-000	1	600	654-657	9

1-1/4", 1-1/2", 2" and 2-1/2" NPT Taps

Standard			Catalog Number				Ctn. Qty	Metric		
Nom. Sizes Inches	O.D. Range Inches	Wt. Each Lbs.	1-1/4" NPT/32 mm	1-1/2" NPT/40 mm	2" NPT/50 mm	2-1/2" NPT/65 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
2	2.35-2.56	3	317-00025610-000	317-00025612-000	N/A	N/A	6	50	60-65	1
3	2.97-3.54	5	317-00035410-000	317-00035412-000	317-00035414-000	N/A	6	80	76-89	2
3-4	3.74-4.13	8	317-00041310-000	317-00041312-000	317-00041314-000	317-00041316-000	6	80-100	95-105	3
*4	4.40-4.50	6	317-00045010-000	317-00045012-000	317-00045014-000	317-00045016-000	6	100	112-114	3
*4	4.40-4.80	6	317-00048010-000	317-00048012-000	317-00048014-000	317-00048016-000	6	100	112-122	3
4-5	4.74-5.14	6	317-00051410-000	317-00051412-000	317-00051414-000	317-00051416-000	6	100	120-130	3
4-5	5.00-5.63	9	317-00056310-000	317-00056312-000	317-00056314-000	317-00056316-000	4	100-125	121-143	4
6	6.94-6.70	9	317-00066310-000	317-00066312-000	317-00066314-000	317-00066316-000	4	150	151-170	4
*6	5.94-6.90	9	317-00069010-000	317-00069012-000	317-00069014-000	317-00069016-000	4	150	151-175	4
6	6.84-7.60	7	317-00076010-000	317-00076012-000	317-00076014-000	317-00076016-000	4	150	174-193	3
6-8	7.69-8.72	11	317-00087210-000	317-00087212-000	317-00087214-000	317-00087216-000	4	150-200	195-221	5
*6-8	7.69-9.05	11	317-00090510-000	317-00090512-000	317-00090514-000	317-00090516-000	4	150-200	195-230	5
8-10	8.54-10.10	9	317-00101010-000	317-00101012-000	317-00101014-000	317-00101016-000	4	200-250	217-256	4
*10	10.75-11.10	9	317-00111010-000	317-00111012-000	317-00111014-000	317-00111016-000	4	250	273-282	5
10-12	10.64-12.12	11	317-00121210-000	317-00121212-000	317-00121214-000	317-00121216-000	4	250-300	271-307	5
*12	12.75-13.20	9	317-00132010-000	317-00132012-000	317-00132014-000	317-00132016-000	4	300	324-335	6
12-14	12.62-14.32	14	317-00143210-000	317-00143212-000	317-00143214-000	317-00143216-000	4	300-350	321-363	6
12-14	14.73-15.65	18	317-00156510-000	317-00156512-000	317-00156514-000	317-00156516-000	1	300-350	375-397	8
14-16	15.95-17.25	19	317-00172510-000	317-00172512-000	317-00172514-000	317-00172516-000	1	350-400	406-438	9
16	17.25-17.80	19	317-00178010-000	317-00178012-000	317-00178014-000	317-00178016-000	1	410	438-452	9
16-18	17.40-18.88	19	317-00188810-000	317-00188812-000	317-00188814-000	317-00188816-000	1	400-450	442-479	9
*18	19.38-19.68	19	317-00195010-000	317-00195012-000	317-00195014-000	317-00195016-000	1	450	492-500	9
*20	21.55-21.65	19	317-00216010-000	317-00216012-000	317-00216014-000	317-00216016-000	1	500	547-500	9
24	25.75-25.85	30	317-00258010-000	317-00258012-000	317-00258014-000	317-00258016-000	1	600	654-657	9

When properly sized from the factory, this product meets the requirements listed in the Uni-Bell PVC Pipe Association's "Handbook of PVC Pipe" and in the AWWA's "Manual M23: PVC Pipe Design and Installation."

CCR #009

LEAGUE CITY
SOUTH SHORE HARBOUR PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City		
PROJECT NAME:	South Shore Harbour	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**9**	**Date:**	**1/21/2016**
CHANGE DESCRIPTION	During the installation of the 12" by-pass line CDM Constructors Inc. discovered that the existing piping through the existing flow meter vault was installed as 20". At that time The City located as-built drawings which depicted that the piping did in fact decrease in size from a 24" to a 20" and then increase back up to a 24". The design intent was to replace the existing flow meter with a flange by flanged spool piece. The City has requested that CCI remove all the 20" piping in this location and replace with 24" piping to create a continuous run of 24" piping.		
AMOUNT ($):	$10,504	**ROM TIME IMPACT (DAYS):**	**2**

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY:** Paradis/Nicholson

PROJECT: League City SSH Booster Pump Station | **DATE:** 1/21/2016

LOCATION: League City Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
	Excavator	2	DAY						$ 705	$ 1,410			$ 1,410
	Field Labor (5 guys, 2 days)	80	MH	80	$ 55	$ 4,400	$ 3,810	$ 3,810					$ 8,210
CCI General Conditions													
	Project Manager	2	MH	2.0	$ 101.57	$ 203	$ -	$ -	$ -	$ -	$ -	$ -	$ 203
	Construction Specialist (PE)	2	MH	2.0	$ 42.06	$ 84	$ -	$ -	$ -	$ -	$ -	$ -	$ 84
	Superintendent	8	MH	8.0	$ 74.59	$ 597	$ -	$ -	$ -	$ -	$ -	$ -	$ 597
													$ -
				0.0		**$ 5,284**		**$ 3,810**		**$ 1,410**		**$ -**	**$ 10,504**

United Rentals

BRANCH 756
1211 EAST MAIN ST
LEAGUE CITY TX 77573-4159
281-332-8982
281-316-1172 FAX

RENTAL RETURN INVOICE

125063401-002

Job Site

WEBSTER BOOSTER STATION
18530 HIGHWAY 3
WEBSTER TX 77598

Office: 303-383-2377 **Cell:** 713-817-2784

CDM CONSTRUCTORS INC
555 17TH ST STE 1100
DENVER CO 80202-3910

Customer #	: 1359979
Invoice Date	: 02/06/15
Rental Out	: 12/17/14 07:43 AM
Rental In	: 02/05/15 08:00 AM
UR Job Loc	: 18530 HIGHWAY 3, WEB
UR Job #	: 1
Customer Job ID:	
P.O. #	: 93130
Ordered By	: AARON MOLLOHAN
Written By	: TAMMY WALKER
Salesperson	: MICHAEL PAVUR

Invoice Amount: $4,670.02

Terms: Due Upon Receipt
Payment options: Contact our credit office 212-333-6600 Ext. 84879
REMIT TO: UNITED RENTALS (NORTH AMERICA),INC.
PO BOX 840514
DALLAS TX 75284-0514

RENTAL ITEMS:

Qty	Equipment	Description	Minimum	Day	Week	4 Week	Amount
1	10003796	EXCAVATOR 25000-29999# Make: CASE Model: CX130B Serial: NBSAD1580 Meter out: 2575.00 Meter in: 2678.30		705.00	2038.00	4111.00	4,111.00
1	905/5025	EXCAVATOR BUCKET 24"	5.33	5.33	23.00	80.00	74.33
						Rental Subtotal:	4,185.33

SALES/MISCELLANEOUS ITEMS:

Qty	Item		Price	Unit of Measure	Extended Amt.
1	TX UNIT PROPERTY TAX	[DRSURTX/MCI]	8.846	EACH	8.85
1	TEXAS DIESEL TAX	[TXDSL/MCI]	83.288	EACH	83.29
1	ENVIRONMENTAL CHARGE	[ENV/MCI]	53.440	EACH	53.44
				Sales/Misc Subtotal:	145.58
				Agreement Subtotal:	4,330.91
				Tax:	339.11
				Total:	4,670.02

COMMENTS/NOTES:

Unit moved from pump
opened new contrac
moved from pump sta
station 01-08-15.tw

FINAL BILL: 1/14/15

PROJECT 93130
TASK 20380
WORKGROUP _____ G/L# _____
EXP.TYPE (CIRCLE ONE) S / M / 0 / R / ICA / E
COMMITTED COST (CIRCLE ONE) SUB PO
COMMIITMENT# _____
VENDOR # (PROCUREMENT) _____
APPROVED BY _____
ADDITIONAL APPROVAL (IF NEEDED)
_____
HOLD PAYMENT FOR _____
SPECIAL PMT. TERMS _____ (IF NOT NET 42)

CCR #010

LEAGUE CITY
SOUTH SHORE HARBOUR PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City		
PROJECT NAME:	South Shore Harbour	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**010**	**Date:**	**7/18/2016**
CHANGE DESCRIPTION	Additional engineering design support during extended construction period.		
AMOUNT ($):	$25,725	**ROM TIME IMPACT (DAYS):**	**0**

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY:** Paradis/Nicholson

PROJECT: League City SSH Booster Pump Station | **DATE:** 1/21/2016

LOCATION: League City Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
													$ -
													$ -
CDM Smith Design Services													
	CDM Smith	1	LS			$ 25,725	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,725
				0.0		$ 25,725		$ -		$ -		$ -	$ 25,725

City of League City, Texas
South Shore Harbour Pump Station Improvements
CDM Smith P/N 5000-103966
Engineering Fee Proposal for Additional Services

Item	Description / Task	Estimated Man-hours											Subtotal (hrs)	Subtotal (cost $)	Subs (cost $)	Subs (cost+10%)	Other Direct Costs	Total Fee (hrs + Sub Markup of 10% + ODC)
		Principal (hrs)	Technical Director(s) (hrs)	Project Manager (hrs)	Engr. Grade 7/8 (hrs)	Engr. Grade 5/6 (hrs)	Engr. Grade 3/4 (hrs)	Designer (hrs)	Cost Estimator (hrs)	Sr. Word Processor (hrs)	Contract Admin 5/6 (hrs)	Admin Assistant (hrs)						
		$ 200.00	$ 175.00	$ 165.00	$ 175.00	$ 150.00	$ 135.00	$ 120.00	$ 150.00	$ 100.00	$ 100.00	$ 90.00						
ADDITIONAL SERVICES REQUIRED																		
TASK	**EXTENDED CONSTRUCTION SUPPORT (Original Schedule was May 12, 2015. Now end of February 2016)**																	
1	Project Management	2		8							6		16	$ 2,400.00		$ -	$ -	$ 2,400.00
2	Monthly Progress Meeting Attendance	24		54			16			18			112	$ 17,700.00		$ -	$ -	$ 17,700.00
3	Miscellaneous Support - Client Change Order representation meetings, etc.	10		12						4			26	$ 4,400.00		$ -	$ -	$ 4,400.00
	Project Task Expenses (Shipping, Supplies, Repro, etc.)													$ -	$ -	$ -	$ 1,225.00	$ 1,225.00
	Subtotal	36	0	74	0	0	16	0	0	22	6	0	154	$ 24,500.00	$ -	$ -	$ 1,225.00	**$ 25,725.00**
	TOTAL ADDITIONAL SERVICES																**$**	**25,725.00**

CCR #011

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**012**	**Date:**	**3/24/2016**
CHANGE DESCRIPTION	During the Start-up phase and review of the PLC, The City has requested that an additional Alarm Screen be provided on the PLC.		
AMOUNT ($):	$1,220	**ROM TIME IMPACT (DAYS):**	**0**

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY: Paradis/Nicholson**

PROJECT: League City SSH Booster Pump Station Improvements | **DATE:** 3/24/2016

LOCATION: League City, Texas | **Project No:** 104062

	DESCRIPTION	QTY	GENERAL CONDITIONS				LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
			UNIT	MANHOURS	RATE	TOTAL	MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
DFS Alarm Screen														$ 1,220	$ 1,220	$ 1,220
CDM Constructors Inc Labor																$ -
																$ -
																$ -
CCI General Conditions																$ -
				0.0		**$ -**	**0.0**		**$ -**		**$ -**		**$ -**		**$ -**	**$ 1,220**

Paradis, Jennifer L.

From: Arredondo, Tommy <Tommy.Arredondo@leaguecity.com>
Sent: Tuesday, March 22, 2016 7:45 PM
To: Paradis, Jennifer L.; Leos, Ruben; Hooks, Jody; Macke, Thomas
Cc: Mollohan, D. Aaron; Plasencia Sanchez, Jaime; Foster, Chitra; Nicholas, Brent; Mitchell, Jonathan D.
Subject: RE: FW: Alarm Page, League City SSH #40526-SETX

Jen,

The city accepts the proposal submitted by DFS and would like to incorporate it into the project.

Thank you,
Tommy

Tommy Arredondo
Water Superintendent
Water Production
City of League City
5123 ½ Candlewood Dr.
League City, Texas 77573
281 554-1040 - Direct

From: Paradis, Jennifer L. [mailto:paradisjl@cdmsmith.com]
Sent: Friday, March 18, 2016 10:39 AM
To: Leos, Ruben <Ruben.Leos@leaguecity.com>; Hooks, Jody <Jody.Hooks@leaguecity.com>; Arredondo, Tommy <Tommy.Arredondo@leaguecity.com>; Macke, Thomas <Thomas.Macke@leaguecity.com>
Cc: Mollohan, D. Aaron <MollohanDA@cdmsmith.com>; Plasencia Sanchez, Jaime <plasenciasanchej@cdmsmith.com>; Foster, Chitra <FosterCP@cdmsmith.com>; Nicholas, Brent <NicholasBW@cdmsmith.com>; Mitchell, Jonathan D. <mitchelljd@cdmsmith.com>
Subject: FW: FW: Alarm Page, League City SSH #40526-SETX

Good Morning Team,

Please see the below e-mail response from DFS. To create the alarm screen as requested the cost from DFS is $1,220. The list of alarms that would show up on the screen is in the attached excel sheet. Please let me know if this change order is something that The City would like to accept and have incorporated into the project.

Thank you,

Jen

From: Kim Donovan [mailto:kim@dataflowsys.com]
Sent: Monday, March 14, 2016 2:25 PM
To: Paradis, Jennifer L. <paradisjl@cdmsmith.com>
Cc: Mollohan, D. Aaron <MollohanDA@cdmsmith.com>; Plasencia Sanchez, Jaime <plasenciasanchej@cdmsmith.com>; Ted Vreeland - DFS <ted@dataflowsys.com>; Jason Vreeland - DFS <jvreeland@dataflowsys.com>; bobh@dataflowsys.com
Subject: FW: FW: Alarm Page, League City SSH #40526-SETX

Jennifer,

Please see email below and the attached.

Thanks,
Kim

From: Ted Vreeland - DFS [mailto:ted@dataflowsys.com]
Sent: Monday, March 14, 2016 3:04 PM
To: Kim Donovan
Subject: Fwd: FW: Alarm Page

Kim,

This work is included in our quote (160229-01-DW) for $ 1,220 to create a monitor only screen to show active alarms. That price included a screen for up to all of the previous alarm points sent for review and attached to this email.

Regards,
Ted

-------- Forwarded Message --------
Subject:FW: Alarm Page
Date: Mon, 14 Mar 2016 16:04:11 +0000
From: Paradis, Jennifer L. <paradisjl@cdmsmith.com>
To: Kim Donovan (kim@dataflowsys.com) <kim@dataflowsys.com>, Ted Vreeland - DFS <ted@dataflowsys.com>, 'Jason Vreeland - DFS' <jvreeland@dataflowsys.com>
CC: Mollohan, D. Aaron <MollohanDA@cdmsmith.com>, Plasencia Sanchez, Jaime <plasenciasanchej@cdmsmith.com>

Kim/Team,

Please see the below for the alarm screens. I see these aren't included yet but was wondering if the price in the change order would be this add..

Thanks,

Jen

From: Mollohan, D. Aaron
Sent: Friday, March 11, 2016 11:37 AM
To: Paradis, Jennifer L. <paradisjl@cdmsmith.com>
Cc: Plasencia Sanchez, Jaime <plasenciasanchej@cdmsmith.com>
Subject: Fwd: Alarm Page

Jen
Here are the screen shots the city is requesting for SSH. Please send to DFS.

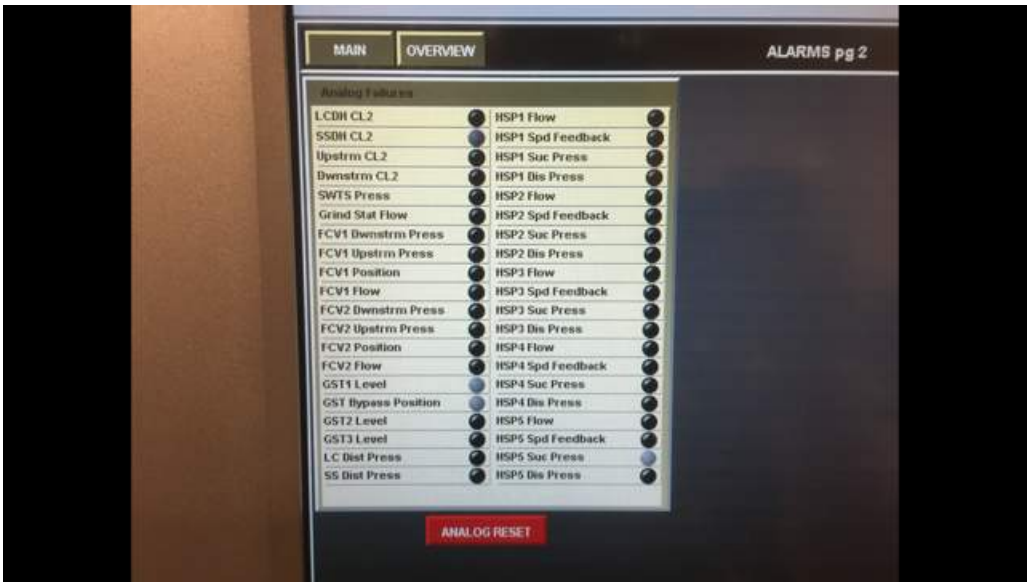
Thanks

Aaron Mollohan
Superintendent
Cdm Constructors Inc.
Cell 713-817-2784

Begin forwarded message:

> **From:** "Leos, Ruben" <Ruben.Leos@leaguecity.com>
> **Date:** March 11, 2016 at 11:21:18 AM CST
> **To:** "MollohanDA@cdmsmith.com" <MollohanDA@cdmsmith.com>
> **Subject: Alarm Page**
>
> Here is the alarm pages from HWY3.
>
> Ruben Leos
> Water Production Supervisor
> Water Production
> City of League City
> 5123 ½ Candlewood Dr.
> League City, Texas 77573
> 281 554-1045 - Direct
>
> CONFIDENTIALITY STATEMENT
>
> This message and all attachments are confidential and may be protected by the attorney-client

and other privileges. If you are not the intended recipient, you are hereby notified that any review, use, dissemination, forwarding, printing, copying, disclosure or distribution of this communication is strictly prohibited and may be unlawful. If you believe this message has been sent to you in error, please notify the sender by replying to this transmission or by calling the City of League City at 281-554-1000, and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message shall be construed as a digital or electronic signature. Thank you for your cooperation.



Sent from my iPhone

CCR #013

LEAGUE CITY
SOUTH SHORE HARBOUR BOOSTER PUMP STATION IMPROVEMENTS PROJECT
CONTRACTOR CONTINGENCY REQUEST SUMMARY

CLIENT NAME:	City of League City, TX		
PROJECT NAME:	South Shore Harbour Booster Pump Station Improvements	**PROJECT NUMBER:**	**104062**
REQUEST NUMBER:	**13**	**Date:**	**7/14/2016**
CHANGE DESCRIPTION	CDM Smith Inc. is requesting funding to support development of a blending studay and plan development to resubmit to the TCEQ to obtain approval of the recently constructed 1,200 gpm water well. Services also include follow up with the TCEQ 6 months after blending plan implementation.		
AMOUNT ($):	$68,380	**ROM TIME IMPACT (DAYS):**	**0**

CCR ESTIMATE WORKSHEET

OWNER: League City | **PREPARED BY:** Paradis/Nicholson

PROJECT: League City SSH Booster Pump Station | **DATE:** 7/14/2016

LOCATION: League City Texas | **Project No:** 104062

	DESCRIPTION	QTY	UNIT	LABOR			MATERIAL		EQUIPMENT		SUBCONTRACT		TOTAL
				MANHOURS	RATE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
CDM Constructors Inc Labor													
													$ -
													$ -
CDM Smith Design Services													
	CDM Smith	1	LS			$ 68,380	$ -	$ -	$ -	$ -	$ -	$ -	$ 68,380
				0.0		$ 68,380		$ -		$ -		$ -	$ 68,380

11490 Westheimer Road, Suite 700
Houston, Texas 77077
tel: 713 423-7300

July 14, 2016

Mr. John Lothrop
City of League City
305 East Main Street
League City, Texas 77573

Subject: City of League City, Texas
South Shore Harbour Booster Pump Station Improvements Project
Request for Additional Services Funding and Authorization
CDM Smith P/N: 5000-103966

Dear Mr. Lothrop:

CDM Smith is requesting a contract amendment and authorization of additional funding for Additional Services in the amount of **$68,380.00** in support of the South Shore Harbour Booster Pump Station Improvements Project currently nearing final construction completion. Specifically, we are requesting funding to support development of a blending study and plan development to resubmit to the TCEQ to obtain approval of the recently constructed 1,200 gpm water well. Services also include follow up with the TCEQ 6 months after blending plan implementation. Funding for this effort would be part of the CCI Change Order currently being negotiated with the City with a meeting scheduled for July 19th. The CDM Smith team is committed to continuing our high level of support for the benefit of City. Should you have any questions or need further information, please call me at 713-423-7300 or Jason Venier.

Sincerely,

Brent W. Nicholas, P.E.
Vice President
CDM Smith Inc.
TBPE Firm Registration No. F-3043

07-14-16

cc: Jason Venier, Kim Chanslor, File – CDM Smith

Attachments:

1. Engineering Fee Proposal Breakdown
2. TCEQ Water Well Letter Dated May 13, 2016

City of League City, Texas
South Shore Harbour Pump Station Improvements
CDM Smith P/N 5000-103966
Engineering Fee Proposal for Additional Services

Item	Description / Task	Estimated Man-hours											Subtotal (hrs)	Subtotal (cost $)	Subs (cost $)	Subs (cost+10%)	Other Direct Costs	Total Fee (hrs + Sub Markup of 10% + ODC)
		Principal (hrs)	Technical Director(s) (hrs)	Project Manager (hrs)	Engr. Grade 7/8 (hrs)	Engr. Grade 5/6 (hrs)	Engr. Grade 3/4 (hrs)	Designer (hrs)	Cost Estimator (hrs)	Sr. Word Processor (hrs)	Contract Admin 5/6 (hrs)	Admin Assistant (hrs)						
		$ 200.00	$ 175.00	$ 165.00	$ 175.00	$ 150.00	$ 135.00	$ 120.00	$ 150.00	$ 100.00	$ 100.00	$ 90.00						
ADDITIONAL SERVICES REQUIRED																		
TASK	TCEQ WATER WELL RESPONSE SUPPORT SERVICES																	
1	Project Task Management	2		8							6		16	$ 2,400.00		$ -	$ -	$ 2,400.00
2	Blending Study & Plan Development	4	12	16	40		84	20		24		6	206	$ 29,300.00		$ -	$ -	$ 29,300.00
3	Engineering Letter Report Post 6 months of blending	2	4	8	12		16	8		16			66	$ 9,300.00		$ -	$ -	$ 9,300.00
4	Additional water sampling and results review	2	8	8	16		24	8		4		4	74	$ 10,900.00	$ 10,200.00	$ 11,220.00	$ -	$ 22,120.00
5	TCEQ Response Support	2	4	4						2			12	$ 2,000.00		$ -	$ -	$ 2,000.00
6	Project Task Expenses (Shipping, Supplies, Repro, etc.)													$ -	$ -	$ -	$ 3,260.00	$ 3,260.00
	Subtotal	12	28	44	68	0	124	36	0	46	6	10	374	$ 53,900.00	$ 10,200.00	$ 11,220.00	$ 3,260.00	$ 68,380.00
	TOTAL ADDITIONAL SERVICES																$	68,380.00

PWS_0840007_CO_20160513_Plan Ltr

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 13, 2016

Mr. Brent W. Nicholas, P.E.
CDM Smith
11490 Westheimer Road
Houston, Texas 77077

Re: City of League City - Public Water System ID No. 0840007
- Ref. Log No. P-0523213-157
Engineer Contact Telephone: (713) 423-7300
Plan Review Log No. P-04142016-065
Galveston County, Texas

CN600554661; RN101406189

Dear Mr. Nicholas:

On April 14, 2016, the Texas Commission on Environmental Quality (TCEQ) received planning material with your letter dated May 5, 2016 for the above referenced public water system. On May 2, 2016, TCEQ received well completion data with your letter dated April 28, 2016. Based on our review of the information submitted, we are **unable to approve** the constructed well for use at this time. Please provide additional information showing how the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 – Rules and Regulations for Public Water Systems will be met:

1. According to our calculations using four corrosive indices (Modified Larson's Ratio, Langelier Saturation Index, Ryznar Stability Index and the Aggressive Index), this water appears to be corrosive. The system is required to perform a corrosion control study which shall include evaluation of treatment methods and potential constraints to treatment. This corrosive control study must be submitted to the Technical Review and Oversight Team (TROT) for evaluation and approval. After approval, the system is required to submit modified plans incorporating any necessary treatment option included in the approved corrosion control study to the Plan Review team at the address indicated at the end of this letter.

Instead of submitting a corrosion control study for approval, the system has the option to install treatment or blend with water that is not corrosive before placement into distribution. The system shall submit modify plans for the proposed treatment. Some treatment options my required a TROT exception to be granted first as innovative treatment. If blending is proposed, the system shall submit a blending plan that details the source and final water quality of the blended water and the details on how the blend occurs. Modified plans and specifications for any improvements that will be necessary will need to be submitted with the blending plan. The system will need to follow-up with an engineering report after six months to determine if the treatment/blending is successful.

The well completion data consisted of the following:

- State of Texas Well Report (Tracking No. 391357);
- Well Latitude and Longitude: Lat. 29◦31'31"N; Long. 095◦03'56"W
- Driller's log (geologic log and material setting report);
- Cementing certificate;
- 36-hour pumping test results showing stable production at 1,204 gallons per minute (gpm);
- An ordinance (Ordinance No. 2013-049) establishing rules and regulations regarding sanitary control within the 150 ft. of the City of League City's wells ;
- U. S. Geological Survey 7.5 minute map showing the well location;
- Three bacteriological sampling results showing no coliform contamination on 03/02/2016, 03/03/2016, and 03/04/2016; and,
- Chemical analysis results from Envirodyne Laboratories, Inc. dated 03/28/2015:

Primary Contaminants		
Contaminant	**MCL (mg/L)**	**Results**
Arsenic	0.01	0.002
Fluoride	4.0	1.28
Nitrate	10 (as N)	<0.1
Nitrite	1 (as N)	<0.05

Secondary Contaminants		
Contaminant	**SCL (mg/L)**	**Results**
Aluminum	0.2	0.024
Chloride	300	111.0
Copper	1.0	0.002
Fluoride	2.0	1.28
Iron	2.0	0.165
Manganese	0.05	0.033
pH	≥7 (Standard Unit)	7.7
Sulfate	300	<2.0
Total Dissolved Solids	1,000	526
Zinc	5.0	<0.005

Radionuclide Contaminants		
Contaminant	**MCL**	**Results**
Gross alpha	15 pCi/L	5.0±2.2
Beta Particle	50 pCi/L	3.4±1.2
Radium-226/228	5 pCi/L	0.5±0.3, 0.4±0.5
Uranium	30 µg/L	0.0±0.1

Corrosive Water Parameters	
Parameter (mg/L)	**Result**
Alkalinity as $CaCO_3$	280
Calcium as $CaCO_3$	19.4
Sodium	184
Lead	<0.005

The City of League City public water system provides water treatment.

South Shore Harbour Well is located approximately 3,500 feet east of the intersection of East Main Street and Farm-to-Market Road 518 in Galveston County, Texas.

We will retain these documents for **100 calendar days** from the date of this letter. Revisions or additional information must be submitted to the TCEQ (Plan Review Team, MC-159) within that time or the entire package must be resubmitted for review. Please refer to the Plan Review Team's Log No. **P-04142016-065** in all correspondence for this project.

Please Note: 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

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 Pritesh Tripathi at (512)239-3794 or by email at pritesh.tripathi@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,

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

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

VP/JL/PT/av

cc: City of League City, Attn: Water System Official, 300 West Walker Street, City of League City, Texas 77573

Direct Cost Projection Spreadsheet

League City South Shore Harbour Project
Direct Cost Projection
Date: Oct 6, 2016

SOV #	DESCRIPTION	SUBCONTRACTOR OR VENDOR	BID PACKAGE#	BUDGET	CCR AMOUNT	ORIGINAL SCOPE BUY OUT	VARIANCE FROM BUDGET TO ORIGINAL BUY OUT	BILLED TO DATE	UNBILLED TO DATE	Estimated Cost At Completion	VARIANCE FROM BUDGET TO ECAC	COMMENTS
1	**GC**	N/A		$ 1,361,964.00		$ 1,361,964.00	$ -	$ 1,361,964.00	$ -	$ 1,361,964.00	$ -	
	CCR 005	N/A		$ -	$ -		$ -	$ -	$ -	$ -	$ -	Removed GC's for this CO.
2	**3MG GST**	DN Tanks	1	$ 1,711,568.00		$ 1,512,531.00	$ 199,037.00	$ 1,503,547.00	$ 8,984.00	$ 1,512,531.00	$ 199,037.00	
	CCR 004	DN Tanks		$ -	$ 14,669.00		$ -	$ 13,133.00	$ 1,536.00	$ 14,669.00	$ (14,669.00)	CCR is partially billed already
3	**Yard Process Pipe (SP)**	CDM Constructors Inc.	2	$ 1,712,037.00		$ 1,513,650.00	$ 198,387.00	$ 1,508,650.00	$ 5,000.00	$ 1,513,650.00	$ 198,387.00	
	CCR 008	CDM Constructors Inc.			$ 6,756.00		$ -	$ -	$ 6,756.00	$ 6,756.00	$ (6,756.00)	
	CCR 009	CDM Constructors Inc.			$ 10,504.00		$ -	$ -	$ 10,504.00	$ 10,504.00	$ (10,504.00)	
4	**Site Civil (SP)**	CDM Constructors Inc.	3	$ 416,250.00		$ 755,123.24	$ (338,873.24)	$ 730,913.24	$ 24,210.00	$ 755,123.24	$ (338,873.24)	
	CCR 001	Global Cathodic			$ 61,910.00		$ -	$ 24,210.00	$ 37,700.00	$ 61,910.00	$ (61,910.00)	
5	**Groundwater Well**	Weisinger	4	$ 943,374.00		$ 900,000.00	$ 43,374.00	$ 900,000.00	$ -	$ 900,000.00	$ 43,374.00	
	CCR 002	Weisinger			$ 61,670.00		$ -	$ 61,670.00	$ -	$ 61,670.00	$ (61,670.00)	CCR is completely billed
6	**Electrical I&C (SP)**	CDM Constructors Inc.	5	$ 1,591,093.00		$ 2,310,807.75	$ (719,714.75)	$ 2,310,807.75	$ -	$ 2,310,807.75	$ (719,714.75)	
	CCR 003	CDM Constructors Inc.			$ 14,303.00		$ -	$ -	$ 14,303.00	$ 14,303.00	$ (14,303.00)	
	CCR 007	CDM Constructors Inc.			$ 56,190.00		$ -	$ -	$ 56,190.00	$ 56,190.00	$ (56,190.00)	
7	**Process Equip**	CDM Constructors Inc.	6	$ 324,471.00		$ 554,786.00	$ (230,315.00)	$ 515,286.29	$ 39,499.71	$ 554,786.00	$ (230,315.00)	
8	**Building (SP)**	CDM Constructors Inc.	7	$ 930,804.00		$ 1,000,000.00	$ (69,196.00)	$ 1,000,000.00	$ -	$ 1,000,000.00	$ (69,196.00)	
9	**Fencing**	National Fence	8	$ 51,903.00		$ 74,594.49	$ (22,691.49)	$ 74,594.49	$ -	$ 74,594.49	$ (22,691.49)	
10	**Paint**	Rustbusters	9	$ 50,000.00		$ 90,033.00	$ (40,033.00)	$ 90,033.00	$ -	$ 90,033.00	$ (40,033.00)	
11	**Misc Buyout**	TBD		$ 342,620.00		$ -	$ 342,620.00	$ -	$ -	$ -	$ 342,620.00	
	CCR 012	DFS			$ 1,220.00		$ -	$ -	$ 1,220.00	$ 1,220.00	$ (1,220.00)	
12	**Owner Contingency (100% to COLC)**	N/A		$ 248,084.00		$ -	$ 248,084.00	$ -	$ -	$ -	$ 248,084.00	
13	**Contractor Contingency**	N/A		$ 578,862.00		$ -	$ 578,862.00	$ -	$ -	$ -	$ 578,862.00	
14	**Design**	CDM Smith Inc.		$ 300,000.00		$ 300,000.00	$ -	$ 336,930.00	$ (36,930.00)	$ 300,000.00	$ -	Credit back to Owner for overbilling
	CCR 005	CDM Smith Inc./Briones			$ 4,500.00	$ -	$ -	$ -	$ 4,500.00	$ 4,500.00	$ (4,500.00)	Briones survey for TNMP easement
	CCR 010	CDM Smith Inc.			$ 25,725.00		$ -	$ -	$ 25,725.00	$ 25,725.00	$ (25,725.00)	
	CCR 013	CDM Smith Inc.			$ 68,380.00		$ -	$ -	$ 68,380.00	$ 68,380.00	$ (68,380.00)	
15	**Insurance, Bonds, & Permits**	N/A		$ 195,336.00		$ 107,193.00	$ 88,143.00	$ 105,678.45	$ 1,514.55	$ 107,193.00	$ 88,143.00	
	Liability Insurance	N/A			$ 390.99		$ -		$ 390.99	$ 390.99	$ (390.99)	
	Builders Risk Insurance	N/A			$ 944.90		$ -		$ 944.90	$ 944.90	$ (944.90)	
	Payment and Perf. Bonds	N/A			$ 3,258.27		$ -		$ 3,258.27	$ 3,258.27	$ (3,258.27)	
16	**OH&P**	N/A		$ 787,189.00		$ 787,189.00	$ -	$ 787,189.00	$ -	$ 787,189.00	$ -	
	CCR OH&P	N/A			$ 19,825.27		$ -	$ -	$ 19,825.27	$ 19,825.27	$ (19,825.27)	
	Total			**$ 11,545,555.00**	**$ 350,246.43**	**$ 11,267,871.48**	**$ 277,683.52**	**$ 11,324,606.22**	**$ 293,511.69**	**$ 11,618,117.91**	**$ (72,562.91)**	

CONTRACTOR CHANGE REQUESTS

CCR#	DESCRIPTION	AMOUNT	SOV LINE ITEM CCR CORRRESPONDS TO
CCR 001	Cathodic Protection	$ 61,910	SOV 4
CCR 002	Well Water Yield Issues	$ 61,670	SOV 5
CCR 003	Generator Re-location	$ 14,303	SOV 6
CCR 004	Interior Tank Coating	$ 14,669	SOV 2
CCR 005	TNMP Easement Survey	$ 4,500	SOV 14
CCR 006	Weather Delays (Up to11/05/15)	$ -	N/A
CCR 007	External Disconnect Switch	$ 56,190	SOV 6
CCR 008	Relocating Poly Injection at Well Piping	$ 6,756	SOV 3
CCR 009	Added piping at Flow Meter Vault	$ 10,504	SOV 3
CCR 010	Extended Engineering Services for South Shore Harbour	$ 25,725	SOV 14
CCR 011	DFS Alarm Screen	$ 1,220	SOV 11
CCR 012	Water Well Blending Study & Development for TCEQ Approval	$ 68,380	SOV 14
SUBTOTAL CHANGE ORDERS:		**$ 325,827**	
Liability Insurance		$ 390.99	SOV 15
Builders Risk Insurance		$ 944.90	SOV 15
Payment and Perf. Bonds		$ 3,258.27	SOV 15
Subtotal:		**$ 330,421.16**	
OH&P		$ 19,825.27	SOV 16
TOTAL PRICE CHANGE ORDERS		**$ 350,246.43**	