APPENDIX L:
COST ESTIMATE FOR CONSTRUCTION OFSHALLOW MONITORING WELLS, SAMPLING AND ANALYSIS

TLDD
TULARE LAKE
DRAINAGE DISTRICT

BOARD OF DIRECTORS
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MICHAEL N. NORDSTROM, Secretary and Attorney
DUSTIN FULLER, Manager and Treasurer

MEMORANDUM

DATE: September 12, 2016

TO: Tulare Lake Basin Water Storage District
Svetlana Skvortsov

FROM: Tulare Lake Drainage District (TLDD)
Dustin Fuller, Manager

SUBJECT: Costs Associated with Monitoring Wells

Costs associated to install and monitor monitoring wells within the Tulare Lake Bed area are as follows:

1. Electrical Conductivity Laboratory test = $10.80 per sample
2. Nitrate Laboratory test = $11.00 per sample
3. TLDD staff time to collect and deliver sample(s) to Laboratory = $511.52
4. Cost to install a 6" diameter monitoring well to a depth of 100 feet = $13,300

Attached is the supporting documentation for the above referenced items and are summarized below:

Items 1 and 2. The cost provided by John Montierth, BSK Associates, to analyze Electrical Conductivity (EC) and Nitrates does not include staff time to retrieve each sample, sample care and transportation.

Item 3. TLDD will provide the service of retrieving and delivering each sample to a certified laboratory under the guidelines set forth by the California Regional Water Quality Control Board. Sample retrieval and delivery can be difficult to estimate, factors such as weather conditions, road access and location may vary between samples. TLDD has a cost of $63.94 per hour. Typically, samples can be taken within an 8-hour workday at a cost of $511.52 per day.

Item 4. The cost provided by David Harris, Consolidated Testing Laboratories, INC. gives a detailed breakdown of equipment mobilization, cost per linear foot, and well development for a 100 feet deep well. Additional cost may occur if security is needed and a job site restroom cannot be provided.

Listed above are cost estimates and are subject to change. If you have any questions or concerns, please contact TLDD at 559-992-3145.

Sincerely,

Dustin Fuller, Manager

POST OFFICE BOX 985 • CORCORAN, CA 93212 • TELEPHONE: (559) 992-3145 • FAX (559) 992-2267

Dustin Fuller

From: John Montierth <jmontierth@bskassociates.com>
Sent: Tuesday, September 06, 2016 3:57 PM
To: Dustin Fuller
Subject: RE: Cost Estimates

Dustin – Your price would be:

EC $10.80
Nitrate $11

John Montierth, PhD
Project Manager
BSK Associates
1414 Stanislaus Street
Fresno, CA 93706
P: 559-497-2888 x201
F: 559-485-6935
jmontierth@bskassociates.com
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BSK Associates provides analytical chemistry, construction observation, ecological services, environmental engineering, geotechnical engineering, construction materials testing, and water resources management. Established in 1966, BSK is employee-owned, and has offices and laboratories throughout California and Oregon.
Please consider the environment before printing this e-mail.

From: Dustin Fuller [mailto:dfuller@tldd.org]
Sent: Tuesday, September 06, 2016 3:45 PM
To: John Montierth
Subject: Cost Estimates

Good afternoon John,
I am currently working with the Tulare Lake Basin Storage District, helping on the MUN/AGR Delisting for the lake bottom. At some point in time, we are going to be installing additional monitoring wells and are going through a budget exercise on additional costs. What we are in need of, is a cost to test EC's and nitrates only, that is all that is required at this time. Would it be possible to send me over a rate sheet or quote for analysis? Any help would be greatly appreciated.

Thank you,
Dustin

Dustin Fuller, Manager
TLDD TULARE LAKE DRAINAGE DISTRICT
P.O. Box 985
1107 Norboe Ave.
Corcoran, CA 93212
Office – (559) 992 3145
Fax – (559) 992 2267

CTL CONSOLIDATED TESTING LABORATORIES, INC.
Soils and Materials Testing • Geotechnical and Environmental Drilling • Field Inspection

Santiago Espinoza
Registered Civil Engineer
California RCE 83299

David Harris
California C57, 544541
REA 02838

September 12, 2016

Dustin Fuller
Tulare Lake Drainage District
P.O. Box 985, Corcoran CA 93212

PROJECT: Tulare Lake Drainage District

SUBJECT: Ground water monitoring well installations

Dear Mr. Fuller:

In accordance with your request, we propose to do the following work. The work will be conducted in accordance with the state of California Department of Water Resources and Kings County Health Department requirements.

ESTIMATED COST FOR ONE GROUND WATER MONITORING WELL INSTALLATIONS

DESCRIPTION	UNITS/HOURS	COST	TOTAL
I.R. TH-60 mud rotary drill rig. Drill a 12 ¼" diameter borehole and construct 6" PVC SDR17 wall casing and screen.	100 lf.	$70 / lf.	$7,000.00
Well development using air lift method	100 lf.	$20 / lf.	$2,000.00
Place well seal from 0-65 ft. with neat cement per Tulare County requirements.	65 lf.	$10 / lf.	$650.00
Drilling equipment mobilization and demobilization.	1 job	$1,500 ls.	$1,500.00
E-log	1	$1,800 / ea.	$1,800.00
Prepare and submit Kings County monitoring well permit	1	$350 / ea.	$350.00

ESTIMATED COST FOR ONE MONITORING WELL ONLY
Estimate expires 30 days from contract date. **$13,300.00**
Equipment M/D may be reduced if several wells are required.

Client's Initials _____

OPTIONAL IF REQUIRED

Overnight security on weekdays	$25 / hr.
Job site restroom	$250 / mo.

Client's Initials _____

710 South Kaweah Avenue, Exeter, CA 93221 • Telephone (559) 592-3555 • Fax (559) 592-3553
ctl@consolidatedtesting.com

GENERAL NOTES

1.) This contract is no guarantee that groundwater will be encountered. If groundwater is not encountered in borehole, client will be responsible for actual footage in boring drilled, equipment mobilization and demobilization and surface casing. A new drill location may be required on the property to construct a well with the desired gallons per minute, if initial well location does not produce the required gallons per minute. CTL is not responsible for quality or quantity of water encountered in well. If water quality laboratory analysis is required, testing and cost of testing to be provided by others.

2.) Soil and rock cuttings from water well operations will remain on-site.

3.) Consolidated Testing Laboratories, Inc. will not be responsible for any fine sand or sediment that may enter into the well following development work depending on actual field conditions. Small amounts of fine sand may continue to enter into the well for several months following installation and in most cases diminish in time. This condition may vary depending on the surface soil conditions at the well site.

4.) If any unknown conditions are encountered during drilling operations and does not permit Consolidated Testing Laboratories, Inc. from completing the scope of work as stated on this contract using mud or air rotary method, this contract will be null and void. A change order or new contract will be required to complete the work.

5.) Drilling will be terminated if soft caving formations are encountered that refuse drill bit penetration or may cause excessive wear or damage to equipment. The scope of services to be provided may be re-negotiated by the contractor and owner prior to continuation of project.

6.) Removal and replacement of any obstructions to permit access of drilling equipment is to be provided by owner. Access roads and drilling pad site earthwork that may be required to access well site and set-up equipment, will be the responsibility of the owner

7.) Any settlement or damage to pavement, concrete slabs and lawn areas caused by drilling equipment access will not be the responsibility of Consolidated Testing Laboratories, Inc.

8.) If water is required to be purchased for drilling operations from off-site source, CTL will require owner to pay directly or reimburse CTL for water usage from private or metered location. Cost of CTL water truck travel time required for pick-up and delivery of water from off-site source to job site will be charged at $95.00 per hour.

9.) Drilling fluids and soil cuttings will be stockpiled on-site. CTL will attempt to minimize the amount of on-site drilling mud and soil that is produced as part of completing the project. The site clean-up following drilling will be the client's responsibility to complete.

10.) In the event the client elects to terminate CTL's contract prior to the start of well construction project, CTL will refund the retainer amount, minus a $300.00 site inspection fee. CTL also states water well permit fees and water well abandonment permit fees well be non-refundable.

Client's Initials _____

If this proposal/contract meets with your approval, please sign and initial where indicated and return a fully executed copy of this contract to this office. Receipt of a signed contract will serve as our authorization to proceed and schedule the project.

Respectfully Submitted,

CONSOLIDATED TESTING LABORATORIES, INC.

David Harris
President

Authorized Signature(s)

_____

Date: _____

DH:ac

APN _____

Contact Phone No. _____

NOTE: Payment is due within 30 days of each billing. There will be a late charge of 1-1/2% per month. In the event of litigation or bankruptcy, Consolidated Testing Laboratories, Inc. shall also be entitled to recover reasonable attorney's fees, costs, and expenses of litigation.