



# AGENDA

18700 Ward St.  
Fountain Valley, CA 92708  
(714) 378-3200

WATER ISSUES COMMITTEE MEETING  
WITH BOARD OF DIRECTORS \*  
ORANGE COUNTY WATER DISTRICT  
**Wednesday, October 9, 2024 12:00 p.m., Boardroom**

\*The OCWD Water Issues Committee meeting is noticed as a joint meeting with the Board of Directors for the purpose of strict compliance with the Brown Act and it provides an opportunity for all Directors to hear presentations and participate in discussions. Directors receive no additional compensation or stipend as a result of simultaneously convening this meeting. Items recommended for approval at this meeting will be placed on the **October 16** Board meeting Agenda for approval.

**This meeting will be held in person. As a convenience for the public, the meeting may also be accessed by Zoom Webinar and will be available by either computer or telephone audio as indicated below. Because this is an in-person meeting and the Zoom component is not required, but rather is being offered as a convenience, if there are any technical issues during the meeting, this meeting will continue and will not be suspended.**

**Computer Audio: Join the Zoom Webinar by clicking on the following link:**

<https://ocwd.zoom.us/j/98592928069>

**Webinar ID: 985 9292 8069**

**Telephone Audio: (213) 338 8477**

Teleconference Sites:  
10382 Bonnie Drive, Garden Grove  
20 Civic Center, Santa Ana  
19 Cannery, Buena Park  
1502 North Broadway, Santa Ana  
1454 Madison Street, Tustin

\* Members of the public may attend and participate at all locations.

## PLEDGE OF ALLEGIANCE

## ROLL CALL

## ITEMS RECEIVED TOO LATE TO BE AGENDIZED

RECOMMENDATION: Adopt resolution determining need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda (requires two-thirds vote of the Board members present, or, if less than two-thirds of the members are present, a unanimous vote of those members present.)

## VISITOR PARTICIPATION

Time has been reserved at this point in the agenda for persons wishing to comment for up to three minutes to the Board of Directors on any item that is not listed on the agenda, but within the subject matter jurisdiction of the District. By law, the Board of Directors is prohibited from taking action on such public comments. As appropriate, matters raised in these public comments will be referred to District staff or placed on the agenda of an upcoming Board meeting.

At this time, members of the public may also offer public comment for up to three minutes on any item on the Consent Calendar. While members of the public may not remove an item from the Consent Calendar for separate discussion, a Director may do so at the request of a member of the public.

## **CONSENT CALENDAR (ITEMS NO. 1 – 4)**

All matters on the Consent Calendar are to be approved by one motion, without separate discussion on these items, unless a Board member or District staff request that specific items be removed from the Consent Calendar for separate consideration.

1. MINUTES OF WATER ISSUES COMMITTEE MEETING HELD SEPTEMBER 11, 2024  
RECOMMENDATION: Approve minutes as presented
2. OPERATIONAL EFFICIENCY STUDY - BOOKY OREN GLOBAL WATER TECHNOLOGIES  
RECOMMENDATION: Agendize for October 16 Board Meeting: Authorize issuance of Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$60,000
3. REPLACEMENT OF THE GROUNDWATER REPLENISHMENT SYSTEM FOUNTAIN VALLEY CAMPUS FIRE PANELS FROM EDWARDS EST-3 SERIES to EST-4 SERIES DUE TO OBSOLESCENCE  
RECOMMENDATION: Agendize for October 16 Board meeting: Authorize issuance of Agreement with TRL Systems in the amount of \$589,239 for services and materials to permit, replace, program, test and certify the FACP system
4. PURCHASE ORDER TO THERMO SCIENTIFIC FOR ONE ION CHROMATOGRAPH TANDEM MASS SPECTROMETER (IC-MS/MS)  
RECOMMENDATION: Agendize for October 16 Board meeting: Authorize issuance of a Purchase Order to Thermo Scientific for the total amount of \$334,845 for one Thermo Scientific Ion Chromatograph tandem Mass Spectrometer coupled with a TSQ Quantis Plus Triple Quadrupole (TQ) Mass Spectrometer, Genius XE35 Nitrogen generator, and AS-AP autosampler with temperature control option

## **END OF CONSENT CALENDAR**

### **INFORMATIONAL ITEM**

5. STATUS UPDATE ON MINOR DEVIATION TO 508 ELEVATION AT PRADO DAM AND SANTA ANA RIVER FIRE IMPACT ASSESSMENT

### **CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE OCTOBER 16 BOARD MEETING**

### **DIRECTORS' ANNOUNCEMENTS/REPORTS**

### **GENERAL MANAGER'S ANNOUNCEMENTS/REPORTS**

### **ADJOURNMENT**

## WATER ISSUES COMMITTEE MEMBERS

### Committee Members

Bruce Whitaker - Chair  
Dina Nguyen - Vice Chair  
Roger Yoh  
Van Tran  
Erik Weigand

### Alternates

Denis Bilodeau  
Steve Sheldon  
Natalie Meeks  
Valerie Amezcua  
Cathy Green

In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted at the guard shack entrance and in the main lobby of the Orange County Water District, 18700 Ward Street, Fountain Valley, CA and on the OCWD website not less than 72 hours prior to the meeting date and time above. All written materials relating to each agenda item are available for public inspection in the office of the District Secretary. Backup material for the Agenda is available at the District offices for public review and can be viewed online at the District's website: [www.ocwd.com](http://www.ocwd.com)

Pursuant to the Americans with Disabilities Act, persons with a disability who require a disability-related modification or accommodation in order to participate in a meeting, including auxiliary aids or services, may request such modification or accommodation from the District Secretary at (714) 378-3234, by email at [cfuller@ocwd.com](mailto:cfuller@ocwd.com) by fax at (714) 378-3373. Notification 24 hours prior to the meeting will enable District staff to make reasonable arrangements to assure accessibility to the meeting.

As a general rule, agenda reports or other written documentation has been prepared or organized with respect to each item of business listed on the agenda and can be reviewed at [www.ocwd.com](http://www.ocwd.com). Copies of these materials and other disclosable public records distributed to all or a majority of the members of the Board of Directors in connection with an open session agenda item are also on file with and available for inspection at the Office of the District Secretary, 18700 Ward Street, Fountain Valley, California, during regular business hours, 8:00 am to 5:00 pm, Monday through Friday. If such writings are distributed to members of the Board of Directors on the day of a Board meeting, the writings will be available at the entrance to the Board of Directors meeting room at the Orange County Water District office.



MINUTES OF BOARD OF DIRECTORS MEETING  
WATER ISSUES COMMITTEE  
ORANGE COUNTY WATER DISTRICT  
September 11, 2024, @ 12:00 p.m.

Director Whitaker called the Water Issues Committee meeting to order at 12:00 p.m. in the District Boardroom. Public access was also provided via Zoom webinar. The Secretary called the roll and reported a quorum as follows:

Committee Members

Bruce Whitaker  
Dina Nguyen  
Roger Yoh  
Van Tran  
Erik Weigand

Alternates

Denis Bilodeau  
Steve Sheldon  
Natalie Meeks (absent)  
Valeria Amezcua (absent)  
Cathy Green

OCWD

John Kennedy – General Manager  
Chris Olsen – Executive Director of Engineering/Water Resources  
Mehul Patel – Executive Director of Operations  
Jason Dadakis – Executive Director of Water Quality & Technical Resources  
Lisa Haney – Executive Director of Planning and Natural Resources  
Jeremy Jungreis – General Counsel  
Christina Fuller – District Secretary

**CONSENT CALENDAR**

The Consent Calendar was approved upon motion by Director Yoh, seconded by Director Weigand and carried [5-0], as follows:

**Ayes: *Whitaker, Nguyen, Yoh, Tran, Weigand***

1. Minutes of Water Issues Committee Meeting

**The Minutes of the Water Issues Committee meeting held August 14, 2024, were approved as presented.**

2. Replacement of Water Quality Westbay Vehicle T-97

**Recommended for approval at September 18 Board meeting: Authorize issuance of Purchase Order to LDV Custom Specialty Vehicles for \$347,546.00 (not including tax) for purchase and delivery of Mobile Water Sampling Lab Vehicle and authorize the payment of \$30,002 use tax for this vehicle purchase to the California Department of Tax and Fee Administration.**

3. Contract No. FUL-2022-1 Authorize Notice of Completion, Ratify Change Orders, Authorize Budget Increase, and Authorize Transfer

**Recommended for approval at September 18 Board meeting: 1) Ratify issuance of Change Order Nos. 1 – 11 to Pacific Hydrotech for a total amount of \$348,168; 2) Accept completion of work and authorize filing a Notice of Completion for Contract No. FUL-2022-1: Fullerton Main Plant PFAS Water Treatment Plant; 3) Increase project budget by \$495,430 for a total project budget of \$13,685,430; and 4) Authorize the General Manager to transfer the Fullerton Main Plant PFAS Water Treatment Plant to the City of Fullerton effective the date of filing the Notice of Completion and quitclaim any property rights obtained for the project.**

4. Notice of Completion for Contract GBM-2024-1 Destruction of Monitoring Wells AM-29A and MCAS-10

**Recommended for approval at September 18 Board meeting: Accept completion of the Work and Authorize filing a Notice of Completion for Contract No. GBM-2024-1.**

5. Contract No. FUL-2024-1 Fullerton Well Kim 2 PFAS Water Treatment Plant Engineers Report, Categorical Exemption, and Notice Inviting Bids

**Recommended for approval at September 18 Board meeting: 1) Approve the Engineer's Report for the city of Fullerton Wells Kim 2 and Sunclipse 10 PFAS Water Treatment Plant Project and determine the project feasible, necessary and beneficial to the lands of the District; 2) Authorize filing of a Categorical Exemption for the Fullerton Well Kim 2 PFAS Water Treatment Plant project in compliance with the California Environmental Quality Act (CEQA) guidelines; and 3) Authorize publication of Notice Inviting Bids for Contract No. FUL-2024-1, Fullerton Well Kim 2 PFAS Water Treatment Plant.**

#### **INFORMATIONAL ITEM**

6. Basin Storage Update for Water Year 2023-24

Hydrogeologist Brendan Neel reported that staff evaluated water level conditions throughout the basin and constructed groundwater elevation contour maps representing the end of the water year. He advised that using the "full basin" benchmark for all three aquifer layers in the basin, an accumulated overdraft of 133,000 acre-feet (AF) was calculated as of June 30, 2024. He noted that the basin experienced an annual storage increase of 56,000 AF for water year (WY) 2023-24. Mr. Neel presented details of the water level change and accumulated overdraft calculation.

#### **CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE SEPTEMBER 18 BOARD MEETING**

Chair Whitaker requested all items be placed on the Consent Calendar for the September 18 Board meeting.

#### **ADJOURNMENT**

There being no further business, the meeting was adjourned at 12:30 p.m.

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Bruce Whitaker, Chair



## AGENDA ITEM SUBMITTAL

**Meeting Date:** October 9, 2024

**To:** Water Issues Committee  
Board of Directors

**From:** John Kennedy

**Staff Contact:** John Kennedy

**Budgeted:** Yes

**Budgeted Amount:** \$50,000

**Cost Estimate:** \$60,000

**Funding Source:** General Fund

**Program/Line Item No:** 1010.53001

**General Counsel Approval:** N/A

**Engineers/Feasibility Report:** N/A

**CEQA Compliance:** N/A

**Subject: OPERATIONAL EFFICIENCY STUDY – BOOKY OREN GLOBAL WATER TECHNOLOGIES**

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### SUMMARY

The District has a large and complex operational system. Any small change in efficiency can result in substantial cost savings. This proposal would continue the use of Booky Oren Global Water Technologies to explore areas where District operational efficiencies can be improved and use other organizations around the globe to examine where the District may be able to implement changes and improve efficiencies which could lead to lower operational costs.

Attachment: Booky Oren Global Water Technologies (BOGWT) Ltd. Proposal for Collaboration with the Orange County Water District dated September 1, 2024.

### RECOMMENDATION

Agendize for October 16 Board meeting: Authorize issuance of Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$60,000.

### BACKGROUND/ANALYSIS

The District has a large and complex operational system where any small changes in efficiency can result in substantial cost savings. Mr. Booky Oren is the past Chief Executive Officer of Mekorot, Israel's National Water Company, and is recognized as a global leader in the industry. Mr. Oren has developed a program which attempts to identify strengths and weakness of organizations, makes comparisons with other organizations and then distills the information and comes up with potential solutions that would improve operational efficiencies.

Participants in the current program include OCWD, Singapore PUB, Los Angeles Water and Power, Tucson Water, Hera Group (Italy), Tampa Bay Water, Clean Water Systems (Oregon), Chicago Department of Water Management, Aigues de Barcelona, Berlin Water, Metropolitan Water District of Southern California (MWD), Mekorot (Israel's National Water Company), Vitens (Netherlands), Southern Nevada Water Authority and others.

The District has participated in the program and as a part of the process identified the following challenges that currently exist:

- Exploring Research & Development opportunities
- Emerging contaminant and advanced lab capabilities
- Increasing reverse osmosis (RO) recovery
- Predictive maintenance for equipment
- Newer treatment technologies for PFAS
- Groundwater management
- Cybersecurity

The BOGWT program involves putting together agencies from around the world to share experiences on common areas of interest. It also involves BOGWT scouting global solutions to the District's challenges.

The District has been involved in virtual meetings with Mekorot, Singapore PUB, Aigues de Barcelona, Southern Nevada Water Authority, and Vitens (Netherlands). The discussions centered on cybersecurity, groundwater recharge management, emerging contaminant treatment technologies (PFAS), advanced laboratory capabilities, increased RO recovery, building information modeling, and improvements in predictive maintenance.

Through this process the District has identified and selected a vendor that has been used by Singapore PUB that utilize solutions for utilizing artificial intelligence to monitor the reverse osmosis system. The District has begun to implement a system on the GWRS reverse osmosis process which ultimately could help optimize this process.

The current phase of the program has also allowed us to reduce our challenges because of the fact that the District is already considered worldclass in some of the areas of study. The challenge list has been refined to the following:

- Improvement of overall reliability of critical systems
- Increasing RO recovery
- Newer treatment technologies for PFAS
- Cybersecurity improvements

Staff believes that participation in this program has led to valuable information that will lead to potential solutions that in turn will lead to cost savings on our future operating systems associated with GWRS facility. Staff has also refined its participation in this program which has led to reducing the contract with BOGWT from \$90,000 to \$60,000.

### **PRIOR RELEVANT BOARD ACTION(S)**

10/18/23, R23-10-136: Authorize issuance of an Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$90,000.

09/21/22, R22-9-131: Authorize issuance of an Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$90,000.

11/17/21, R21-11-166: Authorize issuance of an Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$90,000.

11/18/20, R20-11-156: Authorize issuance of an Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$90,000.

03/18/20, R20-3-36: Authorize issuance of an Agreement to Booky Oren Global Water Technologies Ltd. in an amount not to exceed \$68,000.

To: John Kennedy, P.E.  
General Manager  
Orange County Water District

**Subject: Booky Oren Global Water Technologies Ltd. (BOGWT)**

**Service Proposal for continued collaboration with the Orange County Water District (OCWD)**

Dear John,

We are pleased to provide you herewith Booky Oren Global Water Technologies' (BOGWT) proposal for continued collaboration with the Orange County Water District (OCWD).

The following document includes:

- 1. General - Scope of Work**
- 2. Activities and Milestones**
- 3. Budget & Payment Terms**

#### **1. General - Scope of Work**

After a 6-months pilot project initiated in April 2020, BOGWT and OCWD continued to an engagement via the K2i Platform and the i2i Process, integrated to support OCWD's challenges through technological innovation and sharing of best practices related to its challenges and points of interest while cultivating meaningful professional relationships with peer agencies for Four additional consecutive years. Towards the next engagement period, OCWD preferred to focus the future activities on specific items, thus reducing the volume of time & budget invested in the process. The following proposal was tailored to meet these requirements.

BOGWT will make available all tools and methodologies used throughout previous engagements.

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**Booky Oren Global Water Technologies Ltd.**

6 HaOmanut St., Poleg Industrial Area Netanya. Mailing Address: P.O.B. 832 Even Yehuda, Israel 4050443  
Tel: +972-722-22-4003 ♦ Fax: +972-722-22-4005 ♦ [www.bookyoren.com](http://www.bookyoren.com)

## 2. Activities and Milestones

The current engagement has shown that there is much value to be generated for OCWD via the K2i Platform.

BOGWT proposes the following engagement to continue addressing OCWD's challenges and support the generation of value for the agency:

#	Activities	Executed by:	Estimated Completion Date:
1	<b>Access to BOGWT's Best Practices Inventory –</b> BOGWT will share the updated inventory of over 230 best practices and 200 recorded video presentations, to assist in the selection of relevant projects	BOGWT	Continuous
2	<b>OCWD's Challenge Definitions</b> BOGWT will facilitate the definition of specific challenges to be addressed via the K2i network. There will be no limit to the number of challenges defined, and OCWD will have complete control over the volume and rate of work to be done on each.	OCWD and BOGWT	Continuous
3	<b>Unlimited Access and Use of the Knowledge to Implementation Digital Portal</b> The portal contains all recorded and shared materials exchanged by global leading utilities as part of K2i interactions, facilitated by BOGWT, and is continuously updated with new recordings as K2i members exchange knowledge.	BOGWT	Continuous
4	<b>K2i +</b> BOGWT will present aggregated summaries and insights on key topics (e.g. Cyber Security, Predictive Maintenance of Rotating Equipment, Innovation Approaches, Asset Management, Digital Transformation, Asset Management, etc) from the K2i, based on availability.	BOGWT	On-demand
5	<b>K2i Meeting Interactions with peer utilities</b> in which OCWD will receive and/or share knowledge All interactions will be prepared and facilitated by BOGWT	OCWD and BOGWT	Continuous
6	<b>Analysis for all K2i Interactions –</b> Detailed analysis of all topics discussed throughout the K2i meeting to identify topics for further discussion, mutual opportunities for collaboration, and knowledge gaps that require further exchange  Results are shared with both participating agencies for feedback and discussion  Mutual points of interest / additional topics and additional activities are identified	BOGWT	Continuous
7	<b>Progress Report</b> The parties will review the progress of the activities in periodically meetings in order to assure maximum value is generated for OCWD	OCWD and BOGWT	Every Four months

### 3. Budget & Payment Terms

The annual budget for a 12-month engagement will be in the amount of US \$60,000.

BOGWT will submit 12 monthly invoices to OCWD, each to the amount of US\$5,000 dated to the last day of every month of engagement. Invoices shall be paid within 15 days.

Should you have questions regarding our proposal described above, please share them with us.

We look forward to a fruitful collaboration between our parties.

Kind regards,

Booky Oren

Chairman & CEO | Booky Oren Global Water Technologies Ltd.



## AGENDA ITEM SUBMITTAL

**Meeting Date:** October 9, 2024

**To:** Water Issues Committee  
Board of Directors

**From:** John Kennedy

**Staff Contact:** M. Patel/R. Raley

**Budgeted:** Yes

**Budgeted Amount:** \$300,000

**Cost Estimate:** \$589,239

**Funding Source:** R&R

**Program/ Line Item No.:** R24008

**General Counsel Approval:** N/A

**Engineers/Feasibility Report:** N/A

**CEQA Compliance:** N/A

**SUBJECT:       REPLACEMENT OF THE GROUNDWATER REPLENISHMENT  
SYSTEM FOUNTAIN VALLEY CAMPUS FIRE PANELS FROM  
EDWARDS EST-3 SERIES to EST-4 SERIES DUE TO  
OBSOLESCENCE**

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### SUMMARY

The Orange County Water District's Fountain Valley campus is currently protected by an Edwards EST-3 Fire Alarm Control Panel (FACP) network that has become obsolete and will no longer be supported by the manufacturer with regards to both hardware or software. It is therefore necessary to upgrade the system to one that is currently supported.

Attachment: TRL Systems Proposal dated 10/1/2024

### RECOMMENDATION

Agendize for October 16 Board meeting: Authorize issuance of Agreement with TRL Systems in the amount of \$589,239 for services and materials to permit, replace, program, test and certify the FACP system.

### BACKGROUND/ANALYSIS

The Orange County Water District operates and maintains the FACP system on the Fountain Valley campus to ensure all employees, buildings and equipment are adequately protected by life safety systems and to ensure compliance with the current Orange County Fire Authority (OCFA) codes and requirements. The existing system was installed as part of the original Groundwater Replenishment System (GWRS) construction project completed in 2008. The FACP system has become obsolete and replacement parts are not readily available. To modernize the fire alarm system and ensure it remains in compliance with all applicable fire codes a replacement of key components is required.

The main scope of work to modernize the system is to remove and replace a total of twenty Edwards EST-3 FACP controllers in a phased approach to ensure system functionality during transition. The existing enclosures housing the controllers will be maintained, which will save on overall costs of the project. Only the panel contents including central power supplies, central processing units, LCD displays, panel batteries and the front doors will be

replaced to achieve functionality with the current EST-4 series FACP system. Also, to further save costs the district plans to reuse control cards, notification cards and communication cards from the existing FACP panels. A key component of the upgrade is to remove the EST-3 panel at the main guard shack location. This panel was originally installed as a bridge to a second EST-3 panel in the same physical location and is no longer necessary. The upgrade will also add one LCD annunciator and a new USB printer in the Operators Control Room.

The upgrades also involve installation of new Central Processing Units (CPUs) in the existing graphic annunciators in the control room and in the guard shack. Finally, a key to modernizing the system will include installation, configuration and integration of a new control board in the MF East building for connection to the existing network to allow for e-mail and SMS notification of system trouble and alarms. The contractor that will perform the upgrade will be responsible for all system programming. They will also need to provide all necessary plans and permits to ensure the system complies with City of Fountain Valley and OCFA requirements.

In order to upgrade the FACP system staff budgeted for the work in the fiscal year 2024-2025 refurbishment and replacement (R&R) budget in the amount of \$300,000. This amount was budgeted based on input from the company that currently maintains the FACP (New Line Fire) and was involved in its original construction. Unfortunately, New Line Fire is no longer planning to remain in the fire alarm control system business and was not able to provide a formal quotation for this work. Quotations were received from two other qualified firms, TRL Systems and Building Electronic Controls (BEC). The pricing received was higher than what was budgeted from both firms. This is due to both firms being larger in size and with less familiarity with our FACP system original architecture. There has also been an escalation in panel hardware pricing since the original budget planning quotation was received back in January 2024. Below is a table summarizing the price quotations received.

Firm	Price Quotation
TRL Systems	\$589,239
Building Electronic Controls (BEC)	\$581,000
New Line Fire	Declined to Propose

Staff is recommending going with the proposal from TRL Systems. The price for the TRL Systems proposals is slightly higher than the one from BEC. However, TRL demonstrated superior FACP system knowledge and is the only proposer that is a licensed distributor of Edwards FACP hardware. Most importantly, TRL is offering a ten-year full warranty whereas the other proposers were only offering a standard one-year workmanship warranty. In addition, TRL performs all integration work in house whereas BEC subcontracts this work which will extend the length of time to complete the project. Finally, TRL showed a deeper understanding of the scope including being the only firm to attend the mandatory job walk meeting to review the Fountain Valley site FACP system architecture in person.

**PRIOR RELEVANT BOARD ACTION(S) N/A**

Your Life Safety and Security

# Solution



**Fire • Healthcare • Security**

Installation, Integration, Value Engineering, Maintenance, Testing and 24/7 Expert Service

## Orange County Water District

18700 Ward Street (Fire Alarm Panel Replacement)(EST 4)

Proposal # PS-100084

version 1

**TRL** *Systems*  
When Reliability Counts



**Prepared by:**  
**TRL Systems - Burbank**  
Priscilla Salgado  
818-531-8801  
818-531-8801  
psalgado@trlsystems.com

**Prepared for:**  
**Orange County Water District**  
18700 Ward Street  
Fountain Valley, CA 92708  
Robert Raley  
(714) 378-8214  
rraley@ocwd.com

**Quote Information:**  
**Quote #: PS-100084**  
Version: 1  
Delivery Date: 10/01/2024  
Expiration Date: 10/31/2024

## ◆ Scope of Work

TRL Systems is pleased to provide the following proposal for your consideration. Our proposal intends to provide you with the equipment, programming, and installation of an Edwards EST-4 System that will meet the requirements of current codes and the Fountain Valley Fire Department, clarifications, and exclusions.

We believe that TRL Systems Inc. stands out for providing superior quality of work, efficiency, and professionalism compared to others in this industry. BASE SCOPE:

TRL Systems Inc. is pleased to provide the following scope of work for your consideration following requirements of the base scope of work.

- TRL Systems will mobilize the project within 30 days of receipt of a fully executed agreement
- All work to be performed during normal business hours.
- Acceptance testing to be performed with the Local Authority Having Jurisdiction.

Fire Alarm System (EST4 Panel Upgrade):

- TRL Systems will prepare engineered shop drawings and submit them to the Local Authority Having Jurisdiction.
- TRL Systems will provide a set of as-built drawings to the facility in the closeout package

- Job survey to determine device locations for accurate plan submittal.
- Prepare data sheet submittals of all fire alarm devices.
- Prepare closeout documents.
- Prepare detailed floor plan drawings with devices, conduit runs, and wire counts.
- Prepare battery calculations.
- Prepare voltage calculations
- Prepare system installation drawings.

EST-3 Fire Alarm Panels to EST-4 panel conversion:

- TRL Systems will upgrade twenty existing EST3 fire alarm control panels and the internal components of two graphic annunciators with EST4 components.
- Add one LCD annunciator and a new USB printer in the Operators Control Room.
- Install, configure and integrate a 4-FWAL control board in the MF East building for connection to customer's existing network to allow for e-mail and SMS notification of system trouble and alarms.

Remote Power Supplies exist and to remain.

Addressable Field Devices to remain and to be retested after programming:

- Smoke Detectors
- Heat Detectors
- Control Modules, Monitor and Relays
- Signal Modules

Notification Devices in common areas:

- All notification devices seem to meet the requirements as per NFPA 72 and ADA compliance. These devices will remain.

## ◆ Ten (10) Year Extended Warranty

TRL Systems is pleased to provide an Extended Warranty guarantee over the duration of ten (10) years for Orange County Water District based on the following warranty statements below:

### **EXCLUSIONS TO THE EXTENDED WARRANTY:**

- Extended warranty offered to end users will cover eligible new EST4 hardware only.

*The following products and product families are excluded form this extended warranty offer:*

- If the old panel remains in the system (partial upgrade)
- System Sensor, SIGA 1 & 2, Xtralis, HyperSpike, ADRF
- FireWorks family of products including computers, accessories, and Cisco MNS products
- Strategic Accounts
- Prior orders and projects that are already under contract

### **Key Notes Related To This Project:**

- TRL has to place material order no later than 12/01/2024 and marked for immediate shipment no later than 12/15/2024
- No other incentives, discounts, or promotions allowed
- All rebates will be awarded upon connection of the project to ConnectedSafety+ (12-Month ConnectedSafety+ License Agreement)
- The customer agrees that TRL will decommission and remove all of the old panel equipment
- Contract approval will be at the cost of \$589,239.00. A change order credit will be provided in the amount of \$15,000.00 once all related warranty service criteria has been met.

### **Warranty Service Criteria:**

- TRL will be the sole provider of services related the the EST4 Fire Alarm Control Panels.
- All Programming will be provided solely by TRL Systems. This includes all testing, service and repairs.

\*TRL shall not be liable for any failure in its performance of the services contemplated in this Agreement caused by events beyond its reasonable control, including, without limitation, terrorism, war, riots, labor strikes, interruption of utility services, fires, floods, earthquakes, and other acts of God, negligent damage caused by others beyond normal wear and tear or unauthorized manipulation of systems, damage caused by accident, abuse, mishandling, or transport, devices subjected to unauthorized repair, devices not used in accordance with care instructions.

◇ Materials & Labor

Qty	Item	Description
1		EST 4 Edwards Panel Upgrade (Lot)
	<b>Note:</b>	TRL Systems will upgrade twenty existing EST3 fire alarm control panels and the internal components of two graphic annunciators with EST4 components.
	<b>Note:</b>	TRL Systems will add one LCD annunciator and a new USB printer in the Operators Control Room.
	<b>Note:</b>	TRL Systems will install, configure and integrate a 4-FWAL control board in the MF East building for connection to customer's existing network to allow for e-mail and SMS notification of system trouble and alarms.
1		Labor for Installation Wiring & Devices (Lot)
1		Labor for Programming (Lot)
1		Labor for System Pretesting (Lot)
1		Mechanical Witness Test
1		Engineered Shop Drawings
1		Plan Check & Permits
22		Inspections
		<b>Total:</b>
		<b>\$589,239.00</b>

◇ Ten (10) Year Extended Warranty

\* Optional

Qty	Item	Description
1		Project Discount - EST 4 Edwards Panel Upgrade (Lot)
	<b>Warranty Criteria</b>	Ten (10) Year Extended Warranty Criteria: All rebates will be awarded upon connection of the project to ConnectedSafety+
	<b>Warranty Criteria</b>	Ten (10) Year Extended Warranty Criteria: TRL Systems has to place material order no later than 12/01/2024 and marked for immediate shipment.
	<b>Warranty Criteria</b>	Ten (10) Year Extended Warranty Criteria: TRL Systems will be responsible for all programming, testing, service and repairs. A fully executed maintenance agreement will be required.
		<b>* Optional Total:</b>
		<b>(\$15,000.00)</b>

**Proposal Total: \$589,239.00**

## Clarifications and Exclusions

### ◆ Clarifications

- Proposal is based on **SDU file dated 8/27/24**. Any changes to the floor plans will be addressed in the form of a change order.
- 72 hours minimum advanced notice required for all additional scheduling.
- CAD files to be provided by owner. If current CAD files for backgrounds cannot be provided, additional engineering costs will be charged.
- Additional engineering fees may be required for re-submittal to AHJ due to customer/architect plan changes or revisions after plan approval.
- The fire alarm control panel is equipped with an integrated dialer and a separate radio dialer. Monitoring contract will be between TRL Systems and building's property management company.
- Price is based on installation of standard wire and trimming of the device only.
- Any cost related to obtaining a "Waiver of Subrogation".
- Free and clear work area for access to device locations and conduit raceways.
- Any obstructions to work area may require additional cost for delay of scheduled work.
- Damage caused by other trades to TRL's workmanship will result in a change order.
- The project installed in conduit shall adhere to NFPA, NEC, and CFC regulations.
- HVAC shutdown wires to be landed by HVAC contractor. Duct detectors are to be mounted and balanced by mechanical contractor.
- 10 amp 110v contactor for HVAC interface of low voltage fire equipment shall be provided by others.
- Work to be completed during normal business hours.
- Fire sprinkler plans were not provided, a minimum of one monitor module per floor to account for sprinkler riser and one module for the city water tie in for the fire sprinkler system. Additional modules may be required based on approved fire sprinkler system plans.

## ◆ Exclusions

- Repair or modifications of any mechanical equipment.
- Fire doors and HVAC controls.
- Contactor for line voltage over 24v fire alarm interface.
- 120VAC power.
- Concrete coring and x-ray of floor, walls, and ceilings.
- Patching, painting, wallpaper and/or cover plates necessary due to addition or relocation of devices/back boxes.
- Adjusting and air balancing of mechanical equipment.
- Fire watch and/or personnel for fire watch.
- Underground piping and/wiring, if unusable.
- Multi-phasing.
- Security override.
- DBA and/or DAS communication systems equipment.
- Installation of conduit and box.
- Supply and installation of required terminal cabinets and conduit risers.
- Fire caulking, soundproofing and fire wrapping of backboxes and installed in rated walls and ceiling.
- Premium time labor.
- Additional inspections due to failure by other trades.
- Door holder and mounting of magnetic door holder.
- Smoke control system.
- Emergency power to fire alarm system.
- Installation of sprinkler system components.
- Interface to energy management system.
- Any and all work above and beyond the above-mentioned scope of work.

**Warranty:**

TRL Systems provides a standard one (1) year warranty on parts and workmanship for the installation of our systems. Warranty services are provided during normal service hours, Monday thru Sunday, 6:00am to 6:00pm (excluding TRL observed holidays). Emergency response outside normal service hours and holidays will be charged at the after hours service rates.

**Invoicing/Payments:**

A mobilization and start-up fee may be invoiced upon project acceptance. The remaining project will be progressively billed on a monthly basis predicated on the percentage of project completion at the end of the month (unless otherwise specified in an agreed upon contract with payee), less previously billed amounts, if applicable. All invoices are due and payable to TRL Systems within thirty (30) days of receipt. Final payment will be made within thirty (30) days of project completion and approval by the Authority Having Jurisdiction. Upon request, unconditional releases will be mailed upon receipt of cleared funds.

**Project Mobilization:**

The standard lead time for project mobilization is four (4) weeks from the date of receipt of the signed acceptance of this proposal or notice to proceed. This provides for the allocation of labor resources; engineering and submittals; and the order and receipt of necessary equipment for the efficient completion of the installation. In the event an expedited schedule requires utilization of premium time labor and/or rush materials delivery, these costs are not included in this scope of work and will require additional charges. Pricing for this proposal is predicated on free access to the affected work areas during normal installation hours (7:00am to 5:00pm Monday thru Friday). In the event access is not available per the construction schedule due to the request of the Tenant, Owner and/or General Contractor, TRL Systems will charge for re-deployment of the installation crew.

Please note that the price provided within this proposal is valid only if; any subsequent contracts associated and based on this proposal specifies that change orders or additional work will be completed by T.R.L. Systems, Inc. according to the labor rates as set forth within this proposal, also including materials being provided at MSRP or less. Any change orders or additional work needed exceeding 10% of the base contract will be required to be quoted and approved as a separate/additional project.

All contracts and payment remittance should be addressed to the following location:

TRL Systems, Inc.  
9531 Milliken Avenue  
Rancho Cucamonga, CA 91730

Please reference this quote number when accepting this proposal.

Contractor's License #413747

**Acceptance**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

PO Number: \_\_\_\_\_



## AGENDA ITEM SUBMITTAL

**Meeting Date:** October 9, 2024

**To:** Water Issues Committee  
Board of Directors

**From:** John Kennedy

**Staff Contact:** P. Parmar

**Budgeted:** Yes

**Budgeted Amount:** \$350,000

**Cost Estimate:** \$334,845

**Funding Source:** R&R

**Program/Item No.** R24003

**General Counsel Approval:** N/A

**Engineers/Feasibility Report:** N/A

**CEQA Compliance:** N/A

**Subject: PURCHASE ORDER TO THERMO SCIENTIFIC FOR ONE ION CHROMATOGRAPH TANDEM MASS SPECTROMETER (IC-MS/MS)**

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### SUMMARY

Staff recommend the purchase of one budgeted ion chromatograph tandem mass spectrometer (IC-MS/MS) system from Thermo Scientific to replace a nine-year old analytical system that has reached the end of its useful life and is no longer being supported by the vendor. In addition to supporting testing for perchlorate (a regulated drinking water contaminant), the new system will improve and expand laboratory capabilities by analyzing for nine regulated haloacetic acids (HAAs) and the herbicide Dalapon, which are currently performed by gas chromatograph / electron capture detection (GC/ECD).

Attachment: Quotation from Thermo Scientific proposal dated September 20, 2024.

### RECOMMENDATION

Agendize for October 16 Board meeting: Authorize issuance of a Purchase Order to Thermo Scientific for the total amount of \$334,845 for one Thermo Scientific Ion Chromatograph tandem Mass Spectrometer coupled with a TSQ Quantis Plus Triple Quadrupole (TQ) Mass Spectrometer, Genius XE35 Nitrogen generator, and AS-AP autosampler with temperature control option.

### BACKGROUND

The District's Philip L. Anthony Advanced Water Quality Assurance Laboratory ('lab') performs perchlorate (ClO<sub>4</sub>) analysis in support of many programs, including Groundwater Producer compliance support, GWRS permit compliance, Santa Ana River monitoring, and basin-wide groundwater monitoring. The lab has utilized a Thermo Scientific ion chromatography single-quadrupole mass spectrometer (IC-MS) system for perchlorate analyses since purchasing it nine years ago to meet the detection limit for reporting (DLR) set by the State of California Division of Drinking Water (DDW) in 2015. More recently in 2024, DDW lowered the DLR to 1 µg/L for perchlorate. Replacing the single-quadrupole IC-MS with an ion chromatograph coupled with tandem mass spectrometer (IC-MS/MS) will allow the laboratory to meet this new DLR, while also future-proofing the lab for expected future requirements by the State to further lower the DLR.

Additionally, the District's current GC/ECD system for the analysis of haloacetic acids (HAAs) and dalapon requires a manual sample preparation process which takes 6+ hours of

staff labor and controlled exposure to hazardous organic solvents like methyl tert-butyl ether. Utilization of the IC-MS/MS for HAAs and the herbicide Dalapon allows for analysis via direct injection with no sample preparation, while also providing improved data quality and sensitivity. This saves time and staff exposure to chemicals during sample extraction preparation. Furthermore, less chemicals are used, and less hazardous waste is generated.

In response to a Request for Proposals (RFP) issued in September 2024, the District received submissions from two vendors: Thermo Electron North America LLC (Thermo Scientific) and Metrohm USA partnering with Agilent Technologies (Agilent). The RFP described the lab's specific needs for an IC-MS/MS instrument used for perchlorate, nine haloacetic acids, and Dalapon analysis. The vendors were required to describe their proposed system configuration and include references from laboratories performing similar methods of analysis in water. Overall system descriptions and sales brochures were also requested. The selection process consisted of senior laboratory staff rating each submitted proposal. Each category was rated on a 100-point scale, with an aggregate score calculated from the sum of the individual scores.

<b>Criteria</b>	<b>Max Score</b>	<b>Metrohm</b>	<b>Thermo</b>
1. Expected accuracy and precision of results	100	95	95
2. Expected durability and lifetime of system	100	90	90
3. Evaluation based on references and/or documents provided	100	84	89
4. Ease of use/implementation and expected training costs	100	69	85
5. Initial purchase cost	100	51	84
6. Ongoing costs to operate system, including service contracts, parts, consumables	100	79	79
<b>Total Score</b>	<b>600</b>	<b>468</b>	<b>522</b>
<b>Average</b>	<b>-</b>	<b>78</b>	<b>87</b>
<b>Total Cost</b>	<b>-</b>	<b>\$444,202</b>	<b>\$334,845</b>

After conducting a thorough evaluation of the proposals, lab staff have determined the Thermo Scientific IC-MS/MS system to best fit the District's current and future needs for three primary reasons:

- While the analytical hardware was judged to be comparable between the two candidate systems based on evaluation of reference checks conducted by lab staff, the lab currently operates one Thermo Scientific IC-MS and two Thermo Scientific IC instruments. All lab staff performing inorganic analysis have been trained extensively in operating Thermo Scientific software and the systems, which will minimize the time needed for software and instrument training on the replacement systems.
- Lab staff have a long history of reliable local service and application support from

Thermo Scientific. Thermo Scientific's service engineers and application support specialists are very knowledgeable in EPA drinking water and wastewater methods, triple quadrupole IC-MS/MS systems. This will minimize method development time on the replacement instruments, thus bringing the new instrument on-line as quickly as possible.

- The Thermo Scientific System costs >\$100,000 less than the Metrohm USA offering.

Therefore, staff recommends the purchase of one Thermo Scientific Ion Chromatograph tandem Mass Spectrometer coupled with a TSQ Quantis Plus Triple Quadrupole (TQ) Mass Spectrometer, Genius XE35 Nitrogen generator, and AS-AP autosampler with temperature control option.

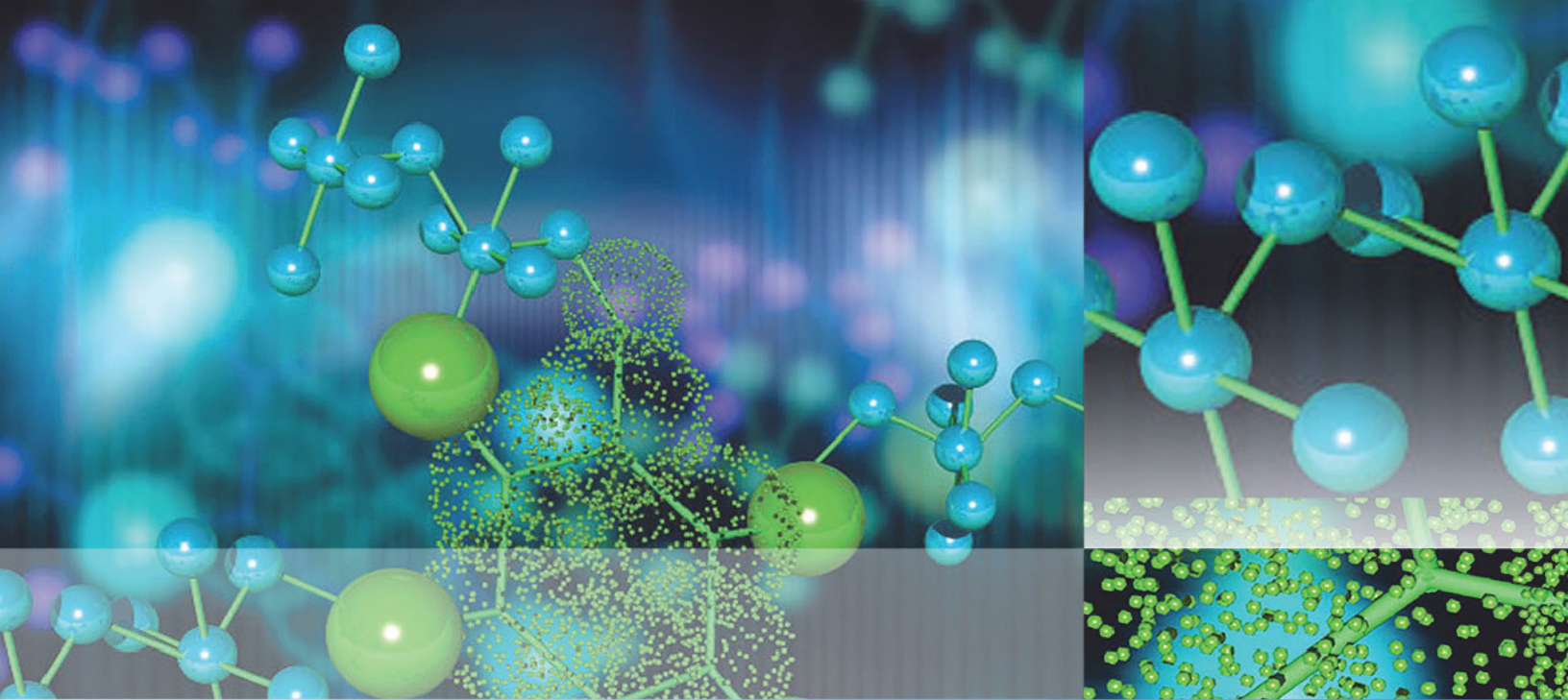
### **PRIOR RELEVANT BOARD ACTION(S)**

8/16/23, R23-8-107: Authorize issuance of a Purchase Order to Agilent Technologies for the total amount of \$126,198 for one Agilent 8890 Gas Chromatograph: one coupled with a 5977C Single Quadrupole (SQ) Mass Spectrometer and stainless-steel ion source.

8/16/23, R23-8-108: Authorize issuance of Purchase Order to Thermo Scientific for the total amount of \$84,837 for the support service agreements for FY23-24, up to \$74,081 for FY24-25, and up to \$73,659 for FY25-26.

9/21/22, R22-9-129: Authorize issuance of Purchase Order to Agilent Technologies for the total amount of \$174,816 for one Agilent Gas Chromatograph/Mass Spectrometer.

7/20/22, R22-7-89: Authorize issuance of Purchase Order to Thermo Scientific for the total amount of \$75,960 for support service agreement for Laboratory instruments for FY22-23.



*IC-MS/MS Bid*

CPQ-00708445

September 20, 2024

Orange County Water District

Prem Parmar

18700 Ward St, PO Box 8300  
Fountain Valley California 92708  
United States

Prem Parmar  
Orange County Water District  
18700 Ward St, PO Box 8300  
Fountain Valley California 92708  
United States

September 20, 2024

**IC-MS/MS Bid**

Ref: RFP for IC-MS/MS System  
Due Date & Time: 9/20/24 @ 4:00 PM PST

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Purchasing Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Purchasing Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00708445	1.01	September 20, 2024	3
Lead Time	Payment Terms	Freight Terms	Expiration Date
3-4 weeks	NET 30 DAYS UPON INVOICE DATE	Origin - Prepay And Add	September 27, 2024
Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

This quotation contains time bound promotional offerings that require order placement by the expiration date shown above. These time bound promotional offerings may not be repeated or extended beyond the expiration date.

### Customer Info:

Customer Name: Prem Parmar  
Company Name: Orange County Water District  
Address: 18700 Ward St, PO Box 8300  
Fountain Valley California 92708  
United States  
  
Phone: (714) 378-3341  
Email: pparmar@ocwd.com

### Sales Contact Info:

Contact Name: Devin Miner  
Phone: (619) 964-9892  
Email: devin.miner@thermofisher.com

### IC-MS/MS Bid

Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.1	22181-60011 Country: MX PROD,DP,STD,ISO-ISO,+DGAS,ICS6 DP Dual Pump - Analytical Isocratic, Analytical Isocratic, with Degas Dual Analytical flow rate pumps support standard-bore and microbore applications. Variable-speed, serial dual-piston design delivers consistent flow rates and quiet detector baselines. Pump flow components are chemically inert, made with PEEK heads and fittings, inert polymer seals, and sapphire pistons. The integrated vacuum degas provides sealed in-line degassing for flow reproducibility. Isocratic pumps are used to deliver pre-made isocratic mobile phases, or when paired with an Eluent Generator module, to deliver electrolytically generated eluents at precisely controlled proportions and flow rates.	\$37,600.00	1	\$15,040.00	\$22,560.00
1.2	072058 Country: MX PROD,EO+4 ELUENT BTLS Eluent Organizer with four 2L plastic bottles. • Designed to hold eluent containers and organize eluent tubing and air lines • Constructed of corrosion-proof polypropylene and epoxy • Translucent liner contains spills and allows view of liquid levels • Large capacity can hold up to four 1L or 2L plastic bottles, two 1L glass bottles, or one 2L glass bottle	\$1,640.00	1	\$656.00	\$984.00
1.3	072059 Country: US ASSY,HLDR,BTL,EO EO Eluent Organizer (tray only) Organizer is constructed of corrosion-proof polypropylene and holds eluent containers and organizes eluent tubing and gas lines. It holds four 1- or 2-liter plastic, two 1-liter glass, or one 2-liter glass bottle.	\$771.00	1	\$0.00	\$771.00
1.4	060684 Country: US KIT,MSQ,MS,PMP,AUX CONE WASH	\$5,410.00	3	\$2,164.00	\$9,738.00

# Sales Quotation

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Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.5	<p>AXP-MS Auxiliary Pump</p> <p>22181-60059 Country: US</p> <p>PROD,DC-6000 LOW TEMP,2 VALVE,MICROBORE</p> <p>DC Module Low Temperature Dual Zones, Two Injection Valves, Microbore</p> <p>The DC Detector/Chromatography module houses and organizes chromatography components such as valves and IC Cube module(s), as well as conductivity and electrochemical detectors, and cells. The module keeps plumbing organized and minimizes connection lengths to reduce delay volumes and improve peak efficiencies. The DC is separated into three sections for automation, detection, and separation. The Low- Temperature configuration extends the operating temperature of the upper zone to support specific applications</p>	\$33,500.00	1	\$13,400.00	\$20,100.00
1.6	<p>079833 Country: MX</p> <p>PROD,AM,NO VLVS</p> <p>Automation Manager</p> <p>AM Automation Manager with No Valves Installed</p>	\$1,210.00	1	\$484.00	\$726.00
1.7	<p>075917 Country: US</p> <p>VALVE,6PORT,PK,RHEO,TITAN,6K,RoHS</p>	\$2,980.00	2	\$1,192.00	\$3,576.00
1.8	<p>079829 Country: MX</p> <p>CD Conductivity Detector, analyt., DC</p> <p>CD Conductivity Detector (analytical) and Integrated Cell</p> <p>The Conductivity Detector is microprocessor-controlled with digital signal processing which detects and resolves high and low concentrations of analytes in the same run. The detector is installed inside the DC module, minimizing tubing lengths and providing optimum thermal stability</p>	\$4,830.00	2	\$1,932.00	\$5,796.00
1.9	<p>302965 Country: LT</p> <p>KIT,VIPER,.005"ID TBG,ICS5+/6,2 MM CD</p>	\$1,630.00	2	\$652.00	\$1,956.00
1.10	<p>088667 Country: US</p> <p>PROD,ADRS600,2MM</p>	\$1,350.00	2	\$405.00	\$1,890.00
1.11	<p>063065 Country: US</p> <p>IonPac AS20 Analytical Column, 2x250mm</p> <p>The Dionex IonPac AS20 column is a high-capacity, hydroxide-selective anion-exchange column designed for the determination of trace levels of perchlorate in drinking water, surface water, and groundwater matrices. It is the column specified in U.S. EPA Method 314.1 (Confirmatory Method).</p>	\$1,670.00	1	\$501.00	\$1,169.00
1.12	<p>063066 Country: US</p> <p>IonPac AG20 Guard Column, 2x50mm</p> <p>The Dionex IonPac AG20 guard column is optimized for use with the Dionex IonPac AS20 column.</p>	\$548.00	1	\$164.40	\$383.60
1.13	<p>064151 Country: US</p> <p>PROD,COL,IP,AG24,2X50MM</p> <p>The Dionex IonPac AG24 guard column is optimized for use with the Dionex IonPac AS24 column.</p>	\$548.00	1	\$164.40	\$383.60

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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.14	064153 Country: US PROD,COL,IP,AS24,2X250MM The Dionex IonPac AS24 is a high-capacity, hydroxide-selective anion-exchange column designed for separation of haloacetic acids (HAAs) and bromate in drinking water prior to detection with mass spectrometry. It is the column specified in U.S. EPA Method 557.	\$1,670.00	1	\$501.00	\$1,169.00
1.15	074926 Country: MX PROD,AS-AP AUTOSAMPLER,TEMP AS-AP Autosampler with Temperature control option AS-AP Autosampler, with Tray Temperature Control Option	\$25,800.00	1	\$7,740.00	\$18,060.00
1.16	074123 Country: MX PROD,ASSY,VLV,RHEO,2/6,TITAN-HP,PK Valve Assembly, includes one 2 way 6-port Valve and Mounting Hardware	\$2,790.00	1	\$837.00	\$1,953.00
1.17	074936 Country: MX PROD,ASSY,RACK,40 VIAL,AS-AP AS-AP 1.5/0.3 mL Vial Tray	\$225.00	3	\$67.50	\$472.50
1.18	055427 Country: US PROD,VIAL+CAP+SLIT SEPTA,1.5ML Vial Kit 1.5 mL Glass with Caps and Septa, 100 Each	\$101.00	1	\$30.30	\$70.70
1.19	074927 Country: US PROD,SEALING DISKS,TFE,10ML,PK/100	\$49.90	1	\$14.97	\$34.93
1.20	22181-60019 Country: MX PROD,EG,DUAL,ISC6 EG Eluent Generator Module The EG Eluent Generator module provides support for electrolytic Eluent Generation for a single system or a dual system. Analytical and Capillary EG Cartridges are installed in the module and configured with a pump to deliver reproducible and repeatable eluent gradients for a wide range of applications. An EG Degasser is required.	\$12,500.00	1	\$3,750.00	\$8,750.00
1.21	075522 Country: US ASSY,DEGASSER,ANALYT,HP EG Degasser and Tubing (Analytical)	\$2,350.00	2	\$705.00	\$3,290.00
1.22	088662 Country: US Dionex CR-ATC 600 Trap Column Dionex™ CR-ATC 600 Continuously Regenerated Anion Trap Column for Consumables Tracking enabled systems	\$1,480.00	2	\$444.00	\$2,072.00
1.23	075778 Country: US Dionex EGC 500 KOH Cartridge Dionex™ EGC 500 KOH Potassium Hydroxide Eluent Generator Cartridge	\$2,000.00	2	\$600.00	\$2,800.00
1.24	062986 Country: US Dionex CRD 200 (2mm) Dionex™ CRD 200 (2 mm) Carbonate Removal Device	\$1,110.00	2	\$333.00	\$1,554.00

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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.25	7350.0104A Country: US CM LICENSE CODE: NEW Required for all new Chromeleon 7.3 or later installations and includes: • New license Code • Installation media • Chromeleon box	\$0.01	1	\$0.00	\$0.01
1.26	7200.0300 Country: US ENTERPRISE CLIENT Can be used as a standalone remote client to analyze data and/or to control instruments, and must be used with an instrument license to control a local instrument • Must be used in conjunction with one of the three Enterprise instrument control licenses to locally control an instrument • Enterprise installations only • Includes Data Client, Compliance tools, Instrument Operation and Report Designer Pro features	\$6,640.00	1	\$1,859.20	\$4,780.80
1.27	7200.1000 Country: US THERMO INSTRUMENT FOR ENTERPRISE For control of one Thermo Scientific instrument • Includes one Class 1 license • Enterprise installations only • Also includes Instrument Controller, Fraction Collection, and Spectral License features	\$2,950.00	2	\$826.00	\$4,248.00
1.28	22153-62049 Country: MX PROD, KIT, IC-MS INSTALLATION	\$1,380.00	1	\$414.00	\$966.00
1.29	042951 Country: US ASSY,SAMPLE LOOP,100UL,PK	\$126.00	1	\$25.20	\$100.80
1.30	042952 Country: US ASSY,SAMPLE LOOP,200UL,PK	\$138.00	1	\$27.60	\$110.40
1.31	043275 Country: US FTG,BOLT,10-32,DBL CONE Bolt, PEEK, Double Cone Ferrule Fitting (10/32)	\$4.01	10	\$0.80	\$32.08
1.32	043225 Country: MX ASSY,KIT,FERRLS,DBL CONE,PK/10	\$25.20	2	\$5.04	\$40.32
1.33	060392 Country: US	\$236.00	1	\$47.20	\$188.80

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Thermo Electron North America LLC  
 5225 Verona Road  
 Madison WI 53711  
  
 1400 Northpoint Parkway  
 West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
	HUB,USB,4PORT,STARTECH,ROHS Hub, USB, 4 Port				
1.34	960708 Country: US CBL,3COND,LINE CORD,US,ROHS Power Cord US	\$13.90	7	\$0.00	\$97.30
1.35	038677 Country: US SVC,INSTAL,APPL,DX-SPRT,DAY	\$0.01	1	\$0.00	\$0.01
1.56	702-026402 Country: 2 DAYS IC ONSITE SUPPORT	\$6,600.00	1	\$1,980.00	\$4,620.00
1.57	702-026403 Country: 3 DAYS IC ONSITE SUPPORT	\$8,200.00	1	\$2,460.00	\$5,740.00
9.1	TSQ03-10001 Country: US TSQ QUANTIS PLUS The Thermo Scientific™ TSQ Quantis™ Plus triple stage quadrupole mass spectrometer with improved Active Ion Management (AIM+) technology, QR4 segmented hyperbolic quadrupoles and collision cell powered by ARC II technology addresses current and future challenges with enhanced acquisition speed, sensitivity and operational simplicity with proven robustness and reliability. Includes 3-year factory warranty.	\$385,900.00	1	\$239,258.00	\$146,642.00

TSQ Quantis Plus System is comprised of the following components and features:

- Standard 3-year factory warranty
- An OptaMax NG ion source API inlet source housing with x, y, and z probe positioning, integrated APCI functionality, a fixed on axis view port, all gas and voltage connections are hard connected automatically producing worry free performance and ultimate reliability. OptaMax NG ion source housing includes one HESI spray insert. For APCI applications APCI spray insert must be ordered separately
- The stacked ring ion guide (SRIG) transfers ions into the vacuum region with minimum fragmentation to maximize sensitivity
- Ion optics comprised of one RF only octopole and one square quadrupole incorporating a neutral blocking post to eliminate noise, providing effective ion transmission to the mass analyzer
- QR4 segmented hyperbolic surface quadrupole mass analyzers providing superior peak shape and transmission at higher resolutions across the mass range
- A ninety degree square quadrupole collision cell powered by ARC II technology with an axial DC field for acceleration of fragment ions enabling high speed data acquisition rates
- Polarity switching: 5 msec electronic switching time that includes signal stabilization
- Dedicated mass calibration probe

# Sales Quotation

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CPQ-00708445	1.01	September 20, 2024	8
Lead Time	Payment Terms	Freight Terms	Expiration Date
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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
	-- A detection system consisting of; a 12 kV conversion dynode, off axis electron multiplier, capable of detecting both positive and negative ions -- An independent dual barrel syringe pump controlled via the data station for maximum flexibility -- Vacuum system includes: o Single three-port turbo molecular pump o 1 SOGEVAC SV 65 oil-based fore-line pump -- Computer System includes: o High performance PC with Microsoft™ Windows™ 10 Enterprise (Long Term Service Channel, LTSC) operating system o High resolution LED Monitor o USB Keyboard, English o USB Optical Mouse  Installation & Application Performance Test; System will be installed and tested to assure components and system are functioning properly and installation specifications are met.				
9.3	80100-60258 Country: US ASSY,HOLDER,DIVERT VALVE & SYRINGE PUMP Bracket for holding syringe pump and optional divert valve. This part does not include the syringe pump or divert valve.	\$1,340.00	1	\$402.00	\$938.00
9.5	B51001912 Country: US KIT, PREINSTALLATION The Installation Kit comprises of EMRS Cal Solution and Small Molecule Suitability Standard	\$810.00	1	\$243.00	\$567.00
9.6	OPTON-30962 Country: GB GEN N2, GENIUS XE35,120V,35L MIN,ROHS Genius XE Nitrogen is a cutting-edge evolution combining advanced technology with refined and robust engineering. Genius XE 35 Nitrogen provides a premium standalone nitrogen solution for high performance LC-MS and other mission-critical laboratory applications where performance and reliability are paramount. Featuring Multi-Stage Purification™ and next-generation integrated compressors with Electronic Compressor Optimization™ (ECO) technology. Genius XE can operate with varying flow rates (up to 35L/min of high purity nitrogen), purity (up to 99.5%) and outlet pressure can be adjusted down from 116psi, offering a flexible solution for a variety of applications. Key Features: <ul style="list-style-type: none"> <li>Nitrogen up to 35L/min, up to 116 psi @ up to 99.5% purity</li> <li>Multi-Stage Purification™ producing analytical grade nitrogen gas up to 99.5% purity.</li> <li>Touch-screen full color user interface for ease of operation</li> </ul>	\$27,400.00	1	\$8,220.00	\$19,180.00

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00708445	1.01	September 20, 2024	9
Lead Time	Payment Terms	Freight Terms	Expiration Date
3-4 weeks	NET 30 DAYS UPON INVOICE DATE	Origin - Prepay And Add	September 27, 2024
Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
9.7	<p>C0012-01-00080 Country: US</p> <p>POWERVAR POWER CONDITIONER 5.0kVA, RoHS</p> <p>5.0 kVA Single-Phase Power Conditioners (PC) can be used with various instruments and accessories. Power Conditioners are used for applications that require large power loads or applications with dual-voltage requirements. To accommodate the different plugs from the various instruments and accessories, a separate PDU (Power Distribution Unit) must also be ordered. The following LC MS and ICP-MS systems can be used with 5.0 kVA Power Conditioner: Exploris 120 &amp; 240, ID-X, IQ-X, Fusion, Fortis, Quantis, Endura, Quantiva, Quantum, Altis, Fusion Lumos, Eclipse, and Q Exactive series as well as iCAP Q/Qnova/MX Series. All Plus versions of the instruments above can also be used with this Power Conditioner system. There is no need to add the N2 Generator to the Power Conditioner since there is no conductive connection point to the LCMS System. N2 generators will require the addition of a Peak Boost (P/N 222-294100) from 208V to 230V. Other instruments and accessories can also be added if one does not exceed the power requirements of the Power Conditioner and that one has the needed receptacles to plug these instruments and accessories into the Power Conditioner either directly or through a PDU. Specs: This UPS comes with a 6 foot power cord ending in a L6-30P. The Power Conditioner requires an input voltage of 208V connected to a 30-40A breaker. The back of the Power Conditioner has various receptacles that can be used to plug in other devices. The receptacles included in this model are: 4x 5-15R and a L14-30R. The L14-30R is the receptacle that is used to plug the PDU into the Power Conditioner. Dims: 10.00" x 12.47" x 18.00" (inches)</p>	\$5,060.00	1	\$1,366.20	\$3,693.80
9.8	<p>C0202-99-00181 Country: US</p> <p>PV PDU 4x 6-20R, 4x 5-15R, NOT EU</p> <p>The PDU module for the Powervar UPS systems acts as a "powerstrip" with numerous plug receptacles. The L14-30R (receptacle on UPS) mates with the L14-30P (Plug on PDU) 10' long power cord. The unique thing about this plug/receptacle combination is that it contains two hot legs, a neutral and a ground, so it's a four conductor set up ("14"), allowing both 115 and 230 VAC to be distributed. The "30" stands for the current rating of the device. These receptacles allow the user to plug in all the power cords that belong to their LCMS system in one place and keep them protected from power surges and from short power failures "brown-outs" of the mains power to the building. The PDU can supply both 125V and 230V depending on the plugs being</p>	\$1,330.00	1	\$505.40	\$824.60

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CPQ-00708445	1.01	September 20, 2024	10
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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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Item	Description	Unit Price	Qty	Unit Discount	Total Price
	used. As a rule, any outlet that is a Nema 5-XX will provide 125 V output, while any Nema 6-XX will provide 230V output. Each PDU can be matched up with any of the LSMS Powervar Security Plus II UPS systems. The differences in the 3 PDUs that are offered relate to the different receptacles that each of our MS systems require. This PDU works in conjunction with any LSMS Powervar UPS system. It is designed for use with the Endura, Quantiva, Quantum, Fortis, Fortis Plus, Quantis, Quantis Plus, Altis, Altis Plus, ID-X, Fusion, Fusion Lumos, Eclipse, and LTQ-XL: • 4 x 5-15R rated at 15A (120V) • 4 x 6-20R rated at 20A (230V)				

9.2	25002-052130 HYPERSIL GOLD 1.9UM 50X2.1MM COLUMN 1/PK	Country: LT \$1,059.77	1	\$317.93	\$741.84
9.4	HAZMAT-01-00140 UHPLCMS INSTALLATION KIT	Country: US \$558.00	1	\$167.40	\$390.60

Item	Description	Unit Price	Qty	Unit Discount	Total Price
3.0	088916 PROD,VIPER ASSY,.007 ID,34.0"(864MM),CD	Country: US \$221.00	1	\$30.94	\$190.06
4.0	088809 PROD,VIPER ASSY,.007 ID. 7.0"[178MM],ED	Country: US \$118.00	1	\$16.52	\$101.48
5.0	088810 PROD,VIPER ASSY,.007 ID. 9.0"[229MM]	Country: US \$118.00	1	\$16.52	\$101.48
6.0	088893 PROD,VIPER ASSY,.007 ID,14.0"(356MM),CD	Country: \$208.00	1	\$29.12	\$178.88
7.0	6041.5711 CPLLR,NANOVIPER,1/32IN,IDX 75UMX1100MM nanoViper UHPLC Fingertight Fitting incl. Fused Silica Capillary with PEEK Sheath for 10-32 Fitting, ID 75 µm, Length 1100 mm ID 150 µm, Length 250 mm	Country: NL \$392.00	1	\$109.76	\$282.24

# Sales Quotation

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CPQ-00708445	1.01	September 20, 2024	11
Lead Time	Payment Terms	Freight Terms	Expiration Date
3-4 weeks	NET 30 DAYS UPON INVOICE DATE	Origin - Prepay And Add	September 27, 2024
Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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 West Palm Beach FL 33407

Item	Description	Unit Price	Qty	Unit Discount	Total Price
8.0	P-704 PEEK UNION .020" THRU HOLE 10-32IN	Country: US \$68.84	1	\$13.77	\$55.07
2.0	701-086201 YEAR 2 AND 3 IC/SP PARTS ONLY WARRANTY Factory warranty for service parts required to perform repairs during years 2 and 3 after the date of instrument installation	Country: US \$0.01	1	\$0.00	\$0.01

<b>Quote Subtotal:</b>	<b>\$626,754.34</b>
<b>Promotions / Discounts:</b>	<b>- \$321,683.43</b>
<b>Quote total less discounts:</b>	<b>\$305,070.91</b>
<b>Shipping:</b>	<b>\$3,986.00</b>
<b>Tax:</b>	<b>\$25,787.20</b>
<b>Quotation Totals:</b>	<b>\$334,844.11</b>

Taxes are estimated and are to be confirmed upon or at the time of purchase.

Please see below for monthly payment options and contact [financialservices@thermofisher.com](mailto:financialservices@thermofisher.com) or call (800) 986-9731 ext. 7 for more information. Please note: Payments are estimates only and availability of lease financing is subject to credit approval and acceptance of terms. Terms and interest rates may vary based on customer's financial profile.

# Sales Quotation

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CPQ-00708445	1.01	September 20, 2024	12
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3-4 weeks	NET 30 DAYS UPON INVOICE DATE	Origin - Prepay And Add	September 27, 2024
Company Name		Customer Name	
Orange County Water District		Prem Parmar	
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Leasing estimate is based on a total cost of **\$334,844.11**; you may choose from the monthly payment options below:

	Lease Term (months)			
	24	36	48	60
Fair Market Value Purchase Option:	\$12,312.22	\$9,074.28	\$6,763.85	\$5,802.85
\$1.00 Purchase Option:	\$14,629.34	\$9,995.10	\$7,667.93	\$6,291.72
Number of Advance Payments:	1	1	1	1

Choosing the Lease that Best Meets Your Needs:

### Fair Market Value (FMV) Purchase Option

The intent of this lease is not to own but to gain the benefits of the equipment in exchange for a low monthly payment. Your End-of-Lease Options are: continue to lease the equipment, purchase a fair market value or return/upgrade the equipment.

### \$1.00 Purchase Option

This is a lease-to-own option where you would own the equipment after all monthly payments have been made. It is similar to a finance agreement and provides you a defined payment schedule over the lease term.

# Sales Quotation

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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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## Options / Recommendations

Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.36	302662 Country: US Suppressor AERS 500e, 2mm, Ext. Water Mo Dionex™ AERS 500 (2 mm) Anion Electrolytically Regenerated Suppressor for external water applications	\$1,350.00	2	\$405.00	\$1,890.00
1.37	1R77606-3120 Country: GB GEN N2,GENIUS XE35,120V,35L/MIN,RoHS	\$26,000.00	1	\$7,800.00	\$18,200.00
1.38	1R76402-6300 Country: US SYRINGE PUMP,USB,CE,CB,FCC,ROHS	\$3,660.00	1	\$1,098.00	\$2,562.00
1.39	AAA-074423 Country: US PROD, REG,EO EO Regulator Accessory and Stand (For mounting on the DC) Accessory provide means to apply positive pressure to eluent bottles; either to isolate with an inert head space, or sparge.	\$1,530.00	1	\$459.00	\$1,071.00
1.40	074938 Country: MX PROD,ASSY,RACK,19 VIAL,AS-AP AS-AP 10 mL Vial Tray	\$323.00	3	\$96.90	\$678.30
1.41	055058 Country: US Vial Kt 10mL Polystyrene-CapsSepta 100ea Vial Kit, 10 mL Polystyrene with Caps and Septa, 100 Each	\$142.00	1	\$42.60	\$99.40
1.42	079812 Country: US VIAL,KIT,1.5ML,PPE,+CAPS +SEPTA,PKG/100 Vial Kit, 1.5 mL Polypropylene with Caps and Septa, Pkg of 100	\$107.00	1	\$32.10	\$74.90
1.43	042953 Country: US ASSY,SAMPLE LOOP,250UL,PK	\$151.00	1	\$45.30	\$105.70
1.44	042954 Country: US	\$147.00	1	\$44.10	\$102.90

# Sales Quotation

Quote Number	Version	Quotation Date	Page
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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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Item	Description	Unit Price	Qty	Unit Discount	Total Price
	ASSY,SAMPLE LOOP,500UL,PK				
1.45	069406 Country: US PROD, RGNT, MCAA-2-13C, 1000UG/ML, 1ML/1VIAL Ready to use internal standards for haloacetic acid analysis using electrospray-mass spectrometric detection. Stable-labeled internal standards prepared in MTBE (methyl-t-butyl ether), 1 mL ampule plus empty vial	\$454.00	1	\$136.20	\$317.80
1.46	069407 Country: US PROD, RGNT, MBAA-1-13C, 1000UG/ML, 1ML/1VIAL Ready to use internal standards for haloacetic acid analysis using electrospray-mass spectrometric detection. Stable-labeled internal standards prepared in MTBE (methyl-t-butyl ether), 1 mL ampule plus empty vial	\$454.00	1	\$0.00	\$454.00
1.47	069408 Country: US PROD, RGNT, DCAA-2-13C, 1000UG/ML/1VIAL Ready to use internal standards for haloacetic acid analysis using electrospray-mass spectrometric detection. Stable-labeled internal standards prepared in MTBE (methyl-t-butyl ether), 1 mL ampule plus empty vial	\$434.00	1	\$130.20	\$303.80
1.48	069409 Country: US PROD, RGNT, TCAA-2-13C, 1000UG/ML, 1ML/1VIAL Ready to use internal standards for haloacetic acid analysis using electrospray-mass spectrometric detection. Stable-labeled internal standards prepared in MTBE (methyl-t-butyl ether), 1 mL ampule plus empty vial	\$454.00	1	\$136.20	\$317.80
1.49	062923 Country: US Perchlorate Internal Std Designed for the quantification of perchlorate at low parts-per-trillion using MS detection. Contains stable-labeled perchlorate (1 mg/L).	\$271.00	1	\$81.30	\$189.70
1.50	083223 Country: US PROD, COL, IP, AS19, 4UM, 2X250MM The Dionex IonPac AS19-4µm column is a high-capacity, hydroxide-selective column for determination of oxyhalides and inorganic anions in diverse matrices. It meets or exceeds the requirements specified in U.S. EPA Methods 300.0 (B) and 300.1 (B). Compared to the standard Dionex IonPac AS19 column, this column uses smaller resin particles for more efficient separations resulting in more accurate peak	\$1,810.00	1	\$543.00	\$1,267.00

# Sales Quotation

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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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Item	Description	Unit Price	Qty	Unit Discount	Total Price
	integration and more reliable results. A high-pressure IC system is required to operate this column under standard conditions.				
1.51	083225 Country: US PROD,COL,IP,AG19,4UM,2X50MM The Dionex IonPac AG19-4µm guard column is optimized for use with the Dionex IonPac AS19-4µm column.	\$593.00	1	\$177.90	\$415.10
1.52	303147 Country: US PROD,COL,IP,AS31,2x250MM	\$1,630.00	1	\$489.00	\$1,141.00
1.53	303148 Country: US PROD,COL,IP,AG31,2x50MM	\$537.00	1	\$161.10	\$375.90
1.54	701-061870 Country: US eLearning 1-year Subscription	\$1,500.00	1	\$0.00	\$1,500.00
1.55	702-025301 Country: CHROMELEON GROUP WEB TRAINING (4HRS)	\$400.00	1	\$0.00	\$400.00
1.58	702-035332 Country: IC/SP/DIA Remote Support (4 hrs)	\$1,000.00	1	\$300.00	\$700.00
1.59	701-061207 Country: US Fact Warr PM - AXP Pump • Annual standard Preventive Maintenance visit and a standard Preventive Maintenance Kit	\$980.00	3	\$225.40	\$2,263.80
1.60	701-061413 Country: US Fact Warr PM - ICS-6000 Dual Anl System	\$8,705.00	1	\$2,002.15	\$6,702.85
1.61	701-055985 Country: US Yr 2or3 Ext War Dual Pump Anal ICS-6000 Yr 2 or 3 Extended Warranty - ICS-6000 Dual Pump Analytical	\$4,648.00	2	\$1,069.04	\$7,157.92

# Sales Quotation

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CPQ-00708445	1.01	September 20, 2024	16
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3-4 weeks	NET 30 DAYS UPON INVOICE DATE	Origin - Prepay And Add	September 27, 2024
Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.62	<p>701-055888 Country: US</p> <p>Yr 2or3 Extended War - Eluent Generator</p> <p>Yr 2 or 3 Extended Warranty - Eluent Generator Module, degasser not included</p> <ul style="list-style-type: none"> <li>Quantity 1 provides coverage for year 2 only. Quantity 2 provides coverage for years 2 and 3.</li> <li>On-site corrective maintenance visits including labor and travel with a target of three (3) business day on-site response time (see note)</li> <li>Annual Preventive Maintenance visit and a standard Preventive Maintenance Kit</li> <li>Priority status for technical support telephone inquires</li> <li>10% Loyalty discount on parts, accessories, and consumables (may not be available in all regions)</li> </ul> <p>Note: Parts are covered by Factory Warranty</p>	\$1,530.00	2	\$351.90	\$2,356.20
1.63	<p>701-016700 Country: US</p> <p>Yr 2or3 Ext War AS-AP w/Temp Control</p> <p>Yr 2 or 3 Extended Warranty - AS-AP Autosampler with tray temperature control option</p> <ul style="list-style-type: none"> <li>Quantity 1 provides coverage for year 2 only. Quantity 2 provides coverage for years 2 and 3.</li> <li>On-site corrective maintenance visits including labor and travel with a target of three (3) business day on-site response time (see note)</li> <li>Annual Preventive Maintenance visit and a standard Preventive Maintenance Kit</li> <li>Priority status for technical support telephone inquires</li> <li>10% Loyalty discount on parts, accessories, and consumables (may not be available in all regions)</li> </ul> <p>Note: Parts are covered by Factory Warranty</p>	\$2,663.00	2	\$612.49	\$4,101.02
1.64	<p>701-055991 Country: US</p> <p>Yr 2or3 Ext War DC 2 Valves ICS-6000</p> <p>Yr 2 or 3 Basic Extended Warranty - ICS-6000 Detector Compartment, 2 Inj Valves, Std and Low Temp, Std and Micro Bore</p> <ul style="list-style-type: none"> <li>Quantity 1 provides coverage for year 2 only. Quantity 2 provides coverage for years 2 and 3.</li> <li>On-site corrective maintenance visits including labor and travel with a target of three (3) business day on-site response time (see note)</li> </ul>	\$3,933.00	2	\$904.59	\$6,056.82

# Sales Quotation

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Orange County Water District		Prem Parmar	
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Item	Description	Unit Price	Qty	Unit Discount	Total Price
	<ul style="list-style-type: none"> <li>• Priority status for technical support telephone inquires</li> <li>• 10% Loyalty discount on parts, accessories, and consumables (may not be available in all regions)</li> </ul> Note: Parts are covered by Factory Warranty				
1.65	701-055877 Country: US Yr 2or3 Extended War - AM no Vlvs	\$156.00	2	\$35.88	\$240.24
	Yr 2 or 3 Extended Warranty - AM Manager, No Valves <ul style="list-style-type: none"> <li>• Quantity 1 provides coverage for year 2 only. Quantity 2 provides coverage for years 2 and 3.</li> <li>• On-site corrective maintenance visits including labor and travel with a target of three (3) business day on-site response time (see note)</li> <li>• Priority status for technical support telephone inquires</li> <li>• 10% Loyalty discount on parts, accessories, and consumables (may not be available in all regions)</li> </ul> Note: Parts are covered by Factory Warranty				
1.66	701-013900 Country: US Yr 2or3 Extended War - CD and ED	\$446.00	4	\$102.58	\$1,373.68
	Yr 2 or 3 Extended Warranty - CD and ED Detectors <ul style="list-style-type: none"> <li>• Quantity 1 provides coverage for year 2 only. Quantity 2 provides coverage for years 2 and 3.</li> <li>• On-site corrective maintenance visits including labor and travel with a target of three (3) business day on-site response time (see note)</li> <li>• Priority status for technical support telephone inquires</li> <li>• 10% Loyalty discount on parts, accessories, and consumables (may not be available in all regions)</li> </ul> Note: Parts are covered by Factory Warranty				
1.67	063540 Country: MX IC OQ/PQ Kit for ICS systems	\$1,360.00	2	\$408.00	\$1,904.00
	This kit can be used to qualify a current ICS system (all modules except for the Dionex Integriion and Dionex ICS-3000/5000/5000+ ED detector). It consists of OQ/PQ software templates for Chromeleon, caffeine and nitrate qualification standards, back pressure coil, qualification certificates, all necessary OQ/PQ documentation and qualification test cells. Qualification test cells are required to perform OQ/PQ tests on the EG. This kit is recommended for customers with Dionex ICS-3000/5000/5000+ systems and as a starter kit for Service Representatives. If a Dionex ICS-3000/5000/5000+ system have an ED detector that needs to be qualified, 063541 must be ordered in addition to 063540.				
1.68	701-055754 Country: US OQ Labor - Dual ch modular IC (no det)	\$6,346.00	1	\$1,269.20	\$5,076.80

# Sales Quotation

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CPQ-00708445	1.01	September 20, 2024	18
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Company Name		Customer Name	
Orange County Water District		Prem Parmar	
* See end pages of quote for PO Submission details			

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Item	Description	Unit Price	Qty	Unit Discount	Total Price
1.69	701-055755 OQ Labor - Detector for modular IC	\$983.00	2	\$196.60	\$1,572.80

**Options Total: \$70,972.43**

# Purchase Order - Submission Details

Quote Number	Version	Quotation Date	Page
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Lead Time	Payment Terms		Expiration Date
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Inco Terms 1	Inco Terms 2	Shipping Method	
Origin - Prepay And Add		Fed Ex Ground	
See below			

Thermo Electron North America LLC  
 5225 Verona Road  
 Madison WI 53711  
  
 1400 Northpoint Parkway  
 West Palm Beach FL 33407

**To place your order and expedite shipment, please 1) sign and date the last page of this document; and 2) fax or e-mail it along with your Purchase Order to one of the addresses below.**

Please note-all Purchase Orders must show the vendor name of Thermo Electron North America LLC

Thermo Electron North America LLC  
 5225 Verona Road  
 Madison WI 53711

Thermo Electron North America LLC  
 or  
 1400 Northpoint Parkway  
 West Palm Beach FL 33407

**Complete System Orders:**

Fax: 412-200-6542

e-mail: [usmadorderprocessing@thermofisher.com](mailto:usmadorderprocessing@thermofisher.com)

**Parts or Service Orders:**

Fax: 877-680-2565

e-mail: [USMAD.ServiceOE.PO@thermofisher.com](mailto:USMAD.ServiceOE.PO@thermofisher.com)

Notes:

- Items marked with an asterisk (\*) on the face of the quotation are non-Thermo Electron North America LLC products.
- Prices, warranty, installation and service on the items quoted herein are available only in the United States and may not be otherwise assigned.
- Tax exemption certificates or direct pay permits must be provided with the order documents, if applicable. If tax exemption documentation is not provided, buyer shall pay federal, state and local taxes in addition to the price stated on this quotation.
- Buyer shall not export or re-export technical data or products supplied by Thermo Electron North America LLC in violation of applicable export regulation. Buyer who exports products purchased hereunder assumes all responsibility for obtaining required export documentation, authorization, and payment of all applicable fees.
- All prices are quoted in USD

**\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Purchasing Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Purchasing Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.**

# Purchase Order - Submission Details

Quote Number	Version	Quotation Date	Page
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Lead Time	Payment Terms		Expiration Date
3-4 weeks	NET 30 DAYS UPON INVOICE DATE		September 27, 2024
Inco Terms 1	Inco Terms 2	Shipping Method	
Origin - Prepay And Add		Fed Ex Ground	
See below			

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 West Palm Beach FL 33407

## TERMS AND CONDITIONS OF SALE FOR PRODUCTS AND SERVICES

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By: _____	By: _____
Print Name: _____	Print Name: _____
Print Title: _____	Print Title: _____
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## AGENDA ITEM SUBMITTAL

**Meeting Date:** October 9, 2024

**To:** Water Issues Committee  
Board of Directors

**From:** John Kennedy

**Staff Contact:** L. Haney

**Budgeted:** N/A

**Budgeted Amount:** N/A

**Cost Estimate:** N/A

**Funding Source:** N/A

**Program/Line Item No.** N/A

**General Counsel Approval:** N/A

**Engineers/Feasibility Report:** N/A

**CEQA Compliance:** N/A

**Subject: STATUS UPDATE ON MINOR DEVIATION TO 508 ELEVATION AT PRADO DAM AND SANTA ANA RIVER FIRE IMPACT ASSESSMENT**

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### SUMMARY

Staff will provide a status update on the Minor Deviation to 508 Elevation at Prado Dam. The 508 Elevation Deviation at Prado Dam has been delayed by 1.5 years due to ongoing cultural studies, and a revised timeline will be provided. Additionally, the impact of the recent fire at Seven Oaks will be discussed, focusing on how it may affect operations at both Seven Oaks and Prado, as well as FIRO, in terms of water quality, habitat conservation, and operational challenges.

Attachment: Presentation (to be separately provided prior to meeting)

### RECOMMENDATION

Informational

### BACKGROUND/ANALYSIS

FIRO is a flexible water management strategy that uses data from watershed monitoring and modern weather and hydrologic forecasting to help water managers selectively retain or release water from reservoirs in a manner that reflects current and forecasted conditions. FIRO uses emerging science and technology to optimize limited resources and adapt to changing climate conditions. Scientific research on the intensity, duration, and location of Atmospheric Rivers (ARs) is central to FIRO.

FIRO holds promise to allow the USACE to capture more stormwater in a manner that does not negatively impact flood risk management capabilities and other dam priorities.

### OCWD FIRO Minor Deviation Application

OCWD is working with the USACE to process a FIRO Deviation to increase the water conservation pool to an elevation of 508 feet for five years.

There are multiple reasons for seeking a FIRO Deviation.

- The first is to test FIRO at an intermediate elevation, continue developing decision support tools and forecast tools specific to Prado Dam operations, and develop assessment tools to better understand how FIRO may affect the habitat behind Prado Dam.
- The second reason is to act as a bridge until WCM Update No. 2 is implemented. Five years was selected to provide sufficient time for wet years to occur to test FIRO. Based on FVA modeling, raising the water conservation pool elevation to 508 feet will provide an average of 2,000 afy of additional recharge to the groundwater basin.
- The 508 Deviation request has been delayed due to new laws and regulations requiring cultural analysis and consultation for the elevation range between 505 and 508. This is a lengthy regulatory process that was further delayed by an unusually wet year, which left key historical sites of interest submerged for four months, preventing cultural archaeologists from conducting necessary examinations.
- The sites have now been identified and verified, and an expert report is being prepared to recommend that the identified sites be preserved in place. GIS data showing how deeply they are currently buried is being compiled and will be submitted to the State Water Board for approval by December. The cultural office and tribal representatives have been briefed on the report and currently support the proposed action, which would allow the deviation request to move forward.
- Remaining internal processes and approval steps within the Army Corps are expected to be completed by the end of February 2025 to finalize the deviation. In the interim, the Army Corps will continue practicing FIRO implementation where appropriate. We are also seeking clarification and approval to formally implement FIRO as a research initiative during the 5-year deviation process, with the goal of integrating it into the Water Control Manual when the deviation expires.

### OCWD FIRO Implementation Roadmap

With the completion of the Final Viability Assessment, the roadmap to implementing FIRO involves the completion of several key activities as shown in Figure 1.



**Figure 1. Prado FIRO Implementation Roadmap and Schedule**

## **Prado Water Control Manual Update No. 1 and No. 2**

The ultimate objective of this program is to incorporate FIRO into the USACE's Prado Dam Water Control Manual (WCM), which describes the rules the USACE follows in operating Prado Dam. The USACE is currently working to complete WCM Update No. 1 which addresses the increased discharge capacity of the dam from 10,000 cfs to 30,000 cfs. This is expected to be completed by July 2026.

Water Control Manual Update No. 2 is solely to incorporate FIRO into the WCM. This update cannot be implemented until WCM Update No. 1 is completed in 2026; however, work will proceed in planning for Update No. 2 so it can be implemented as soon as possible.

Efforts are already underway with the USACE, Sonoma Water, DWR, and Yuba Water Agency to develop flexible language describing the application of FIRO in the WCM's of Lake Mendocino, Lake Oroville, and New Bullards Bar Reservoir. These efforts will assist in developing the language for WCM Update No. 2.

The USACE received partial funding of \$500,000 in its FY24 budget for WCM Update No. 2. As a project partner, OCWD will assist with the work required, including the environmental review and documentation. The current target time frame for completing WCM Update No. 2 is 2027 to 2029.

## **San Bernadino Fire update and potential planning efforts for OCWD operations**

Recent fires in San Bernardino and the Santa Ana River Watershed have had significant ecological and environmental impacts. These wildfires have severely damaged native vegetation, increasing the risk of erosion and sediment flow into the watershed. The loss of plant cover weakens the soil's stability, making the region more vulnerable to landslides and flooding, especially during heavy rains or atmospheric river events. The fires also degrade water quality as ash, debris, and pollutants are washed into the Santa Ana River, threatening aquatic ecosystems and potentially impacting water supply infrastructure. Watershed staff are actively collaborating to help OCWD and others understand and plan for potential first flows from storm events this fall, which may carry debris and pollutants that could hinder the effectiveness of stormwater capture and infiltration efforts.

## **PRIOR RELEVANT BOARD ACTIONS**

6/15/22, R22-6-78 - Authorize amending agreement with UC San Diego/Scripps Institution of Oceanography by adding an amount not to exceed \$265,000 to complete Phase IV of Study on Forecast-Informed Reservoir Operations at Prado Dam.

2/17/21, R21-2-27 - Authorize amending agreement with UC San Diego/Scripps Institution of Oceanography by adding an amount not to exceed \$291,000 for Phase IV of Study on Forecast-Informed Reservoir Operations at Prado Dam and Authorize reimbursing three independent reviewers at \$5,000 each for independent review of the Prado FIRO Preliminary Viability Assessment for a total amount not to exceed \$15,000.

1/22/20, R20-1-9 - Authorize amending agreement with UC San Diego/Scripps Institution of Oceanography by adding an amount not to exceed \$291,000 for Phase III of Study on Forecast-Informed Reservoir Operations at Prado Dam.

10/17/18, R18-10-146 - Approve Phase II FIRO Scoping Study with Scripps Institution of Oceanography; Authorize amending agreement with Scripps Institution of Oceanography by adding an amount not to exceed \$325,000 for Phase II

6-21-2017, R17-6-90 - Authorize execution of an agreement for Phase I of a Scoping Study on Forecast-Informed Reservoir Operations (FIRO) at Prado Dam with UC San Diego/Scripps Institution of Oceanography for an amount not to exceed \$250,000; and, Authorize the District's Membership and Participation in the Subseasonal-to-Seasonal Precipitation Coalition, which is at no cost to the District.