DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY
CITY OF CRESCENT CITY
COUNTY OF DEL NORTE
STATE OF CALIFORNIA

Board of Supervisors Chambers
Flynn Center 981 H Street
Crescent City, CA

Regular Session **Tuesday August 16, 2016** **3:30 PM**

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The Solid Waste Management Authority of the City of Crescent City and the County of Del Norte, State of California, is now meeting in Special Session. Only those items that indicate a specific time will be heard at the assigned time. All items may be taken out of sequence to accommodate public and staff availability.

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All documents referred to in this agenda are available at the Office of the Del Norte Solid Waste Management Authority at 1700 State Street in Crescent City, between the hours of 8 A.M. and 5 P.M. Monday through Friday OR online at www.recycledelnorte.ca.gov
For more information call 465-1100 or email dnswma@recycledelnorte.ca.gov

3:30 PM **CALL MEETING TO ORDER / ROLL CALL**
PLEDGE OF ALLEGIANCE

PUBLIC COMMENTS:

3:30 PM ANY MEMBER OF THE PUBLIC MAY ADDRESS THE SOLID WASTE MANAGEMENT AUTHORITY ON ANY MATTER ON OR OFF THE AGENDA. After receiving recognition from the Chair, please give your name and address for the record. Comments will be limited to three minutes.

OPEN SESSION ITEMS:

1. CONSENT AGENDA

1.1 Approve minutes, Special Session, Tuesday July 5, 2016. **

1.2 Receive a file letter from the Crescent City – Del Norte County Chamber of Commerce appreciating the Authority's support of the July 4th celebrations. **

1.3 Approve a FY 15/16 budget transfer in the amount of $19,233.00 **

END CONSENT AGENDA

2. DIRECTOR'S & TREASURER'S REPORTS

Agenda items 2.1 through 2.5 are provided for information only

2.1 Director's Report **
2.2 Treasurer/Controller Report for June and July 2016 **
2.3 Claims approved by Director for July 2016 **
2.4 Monthly Cash and Charge Reports for June 2016 **
2.5 Monthly Cash and Charge Reports for July 2016 **
2.6 Earned Revenue Comparisons between FY 14/15 and FY 15/16 **
2.7 Earned Revenue Comparisons between FY15/16 and FY16/17 **

DISCUSSION/ACTION ITEMS

3. LANDFILL POSTCLOSURE

3.1 Receive and file revised semi-annual monitoring report for January – June 2016 for the Crescent City Landfill as prepared by Lawrence & Associates. **

3.2 Discussion and possible action regarding Change Order 2 to the Professional Services Agreement with Lawrence & Associates for well development, reporting and technical support for an additional amount not to exceed $8,200. **

4. COLLECTIONS FRANCHISE – No Items

5. TRANSFER STATION

5.1 Discussion and possible action regarding the letter of June 8, 2016 from Hambro/WSG requesting compensation for delayed implementation of the Consumer Price Index-based service fee adjustment. **

6. OTHER GENERAL SOLID WASTE AUTHORITY MATTERS

6.1 Discussion and possible action regarding selection of Board officers. **

6.2 Discussion and possible approval regarding four requests for allocations of Authority-allocated bin pulls:

A. From the City of Crescent City for two in support of the first annual Find Your Park! Event.

B. From Randy Hatfield for three in retroactive support of the 2016 Del Norte County Fair. **

C. From Supervisor Roger Gitlin for one on behalf of the 'Take a Bight Out of Blight' group for a community cleanup. **

D. From the Crescent City / Del Norte County Chamber of Commerce for three in support of the Annual Sea Cruise car Show and the Blues, Brews and Cruise event. **

6.3 Discussion and possible action regarding advocacy positions of the Authority Board relating to Propositions 65 and 67 on the California ballot for November 2016. **

6.4 Discussion and possible approval of a New Legal Services Agreement with Black and Rice LLP, Attorneys at Law. **

6.5 Discussion and possible approval of paying FY 16/17 membership dues to the Rural Counties Environmental Services Joint Powers Authority in the amount of $6,000.00 **

7. ABANDONED VEHICLE ABATEMENT SERVICE AUTHORITY

7.1 Discussion and possible action regarding responses received regarding the Request for Proposals for Removal and Towing of Abandoned Vehicles. **

8. ADJOURNMENT

Adjourn to the next Regular Meeting of the Del Norte Solid Waste Management Authority scheduled for 3:30 P.M., September 20, 2016 at the Del Norte County Board of Supervisors' Chambers, 981 H Street, Suite 100 in Crescent City.

**** Asterisks next to Agenda Item indicates an associated attachment**

DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY
CITY OF CRESCENT CITY
COUNTY OF DEL NORTE
STATE OF CALIFORNIA
Special Session, Tuesday July 05, 2016, 3:30 PM

PRESENT: Commissioner Ron Gastineau, Secretary
Commissioner Blake Inscore, Vice Chair
Commissioner Eli Naffah
Commissioner Chris Howard
Commissioner Martha McClure, Chair
Director Tedd Ward
Legal Counsel Martha Rice
Authority Clerk Katherine Brewer
Authority Treasurer/Controller Rich Taylor

ABSENT: None

ALSO PRESENT: Joel Wallen, Hambro Waste Solutions Group
Wes White, Hambro Waste Solutions Group
Jeremy Herber, Recology Del Norte
Jeaninne Galatioto, Labor Negotiations Contractor

3:30 PM CALL MEETING TO ORDER

Chair McClure called the meeting to order in regular session at 3:30 p.m. Roll call was taken with all Commissioners present. Chair McClure withdrew her position as Chair and asked Vice-Chair Inscore to continue as Chair for the meeting.

PLEDGE OF ALLEGIANCE

The pledge was led by Vice Chair Inscore.

3:30 PM PUBLIC COMMENTS:

There were no public comments.

CLOSED SESSION ITEM:

1.1 CONFERENCE WITH LABOR NEGOTIATORS. Commissioners went into Closed session at 3:32 P.M., with Director Ward, Counselor Rice and Contractor Jeannine Galatioto also attending. Commissioners emerged from Closed Session at 3:50 P.M. Counselor Rice said there was no reportable action taken during the Closed Session.

1.1

OPEN SESSION ITEMS:

2. CONSENT AGENDA

2.2 Approve minutes, Regular Session, Tuesday June 21, 2016.

2.2 Approve payment to CalPERS Fiscal Services Division in the amount of $11,125 towards the Authority's FY 15/16 OPEB obligations.

2.3 Approve a budget transfer in the amount of $1,305.00 **022101**

On a motion by Commissioner Howard and seconded by Commissioner Naffah, the consent agenda was approved by a unanimous polled vote.

END CONSENT AGENDA

3. DIRECTOR'S & TREASURER'S REPORTS

a. Director's Report
b. Treasurer/Controller Report for May 2016
c. Claims approved by Director for June 2016

Director Ward presented these reports to the Board of Commissioners. Commissioner Naffah asked about the plans for outreach during the upcoming Del Norte County Fair, for which the Authority is a major sponsor. The Board took no action.

DISCUSSION/ACTION ITEMS

4. LANDFILL POSTCLOSURE

4.1 Discussion and possible action regarding Notice of Collection from PennCredit Corporation in the amount of $26,566.00 and Regional Water Quality Control Board staff review of 'First-half 2016 Water-Quality Monitoring Report and Evaluation of Threat and Complexity Rating for Crescent City Landfill. **230102**

Director Ward presented an overview and historical summary of the status of this underpayment of the Waste Discharge Requirements Fee for the Crescent City Landfill. Director Ward indicated that staff from the Regional Water Quality Control Board had indicated in a phone conversation that they would be sending a letter supporting a reduction of the Threat/Complexity rating for the Crescent City Landfill from 1A to 2A. As the Authority had already paid the amount associated with a 2A rating, Director Ward felt that it was most likely that there would be no further efforts to collect this amount. Commissioner Howard asked if this change needed to be approved by either the North Coast or State Water Resources Control Board. Director Ward said he was not clear on the process for approving the change in the Threat/Complexity Rating. By consensus, the Board indicated their support for any travel expenses necessary to continue pursuing this appeal if needed for face-to-face meetings with staff or meetings of the Regional Water Quality of State Water Resources Control Agency.

5. **COLLECTIONS FRNACHISE – No Items**

6. **TRANSFER STATION**

6.1 Discussion regarding textile recycling service to begin at the Del Norte County Transfer Station starting on 01 August 2016. **080104**

Hambro/WSG General Manager Wes White addressed the Board indicating that they had begun trials for textile recycling, and had one load of four rejected for being wet. Director Ward reported that textile recycling services through Hambro/WSG would start at the Del Norte County Transfer Station on August 1, with clean bags of textiles and separate bags of shoes for a rate of $75.15 per ton – about half the price for disposing of mixed wastes.

7. **OTHER GENERAL SOLID WASTE AUTHORITY MATTERS**

7.1 Discussion and possible action regarding Authority Resolution 2016-01, APPROVING A MEMORANDUM OF UNDERSTANDING BETWEEN THE DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY AND THE SERVICE EMPLOYEES INTERNATIONAL UNION (SEIU) LOCAL 1021 ON BEHALF OF THE DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY EMPLOYEES, and Resolution 2016-02, ESTABLISHING BENEFITS FOR UNREPRESENTED POSITIONS OF ADMINISTRATIVE ASSISTANT AND FACILITIES AND PROGRAMS COORDINATOR. **211401, 160504**

Following discussion, Commissioner Howard moved and Commissioner McClure seconded a motion to approve Authority Resolution 2016-01 and Authority Resolution 2016-02. Commissioner Naffah pointed out that there were minor typographical errors in Resolution 2016-02, and staff were directed to make those corrections. The motion to approve both Resolutions and make the identified corrections was adopted by a unanimous polled vote.

7.2 Discussion and possible action regarding possible changes to the date for the August 2016 meeting and all regular meetings of the Authority Board.

This item was tabled to a future meeting.

ABANDONED VEHICLE ABATEMENT SERVICE AUTHORITY

8. Discussion and possible action regarding release of a Request for Proposals for Removal and Towing of Abandoned Vehicles. **010203**

The Vice Chair recessed the meeting of the Del Norte Solid Waste Management Authority at 4:12 P.M., and immediately convened as the Abandoned Vehicle Abatement Service Authority (AVA) with Commissioners Inscore, Gastineau, McClure, Howard and Naffah present. Following a brief discussion, Commissioner Naffah moved and Commissioner Gastineau seconded a motion to release the RFP as presented. The motion was approved by a unanimous vote.

The Vice Chair adjourned the meeting of the Abandoned Vehicle Abatement Service Authority at 4:16 P.M. and immediately reconvened as the Del Norte Solid Waste Management Authority.

9. ADJOURNMENT

There being no further business to come before the Authority, the Vice Chair adjourned the meeting at 4:17 P.M., until the next Regular Meeting on August 16th, 2016 at the Del Norte County Board of Supervisors' Chambers, 981 H Street, Suite 100 in Crescent City.

_____ Date / /

Blake Inscore, Vice Chair
Del Norte Solid Waste Management Authority

ATTEST:

_____ Date / /

Ron Gastineau, Secretary
Del Norte Solid Waste Management Authority

Submitted:

_____ Date / /

Katherine Brewer, Clerk
Del Norte Solid Waste Management Authority

Fourth of July Festival 2016

Crescent City – Del Norte County Chamber of Commerce
1001 Front Street Crescent City, CA 95531
Tel. (707) 464-3174 | 800-343-8300 | Fax. (707) 464-9676
www.delnorte.org

July 7, 2016

Solid Waste Management
Board of Directors
1700 State Street
Crescent City, CA 95531

Dear Board of Directors,

On behalf of the Crescent City – Del Norte County Chamber of Commerce, we would like to thank you for being a In-Kind Sponsor and for your generous gift of free dumpster disposal for our Fourth of July celebration. Your commitment to helping in our community is sincerely appreciated.

The weather this year was pleasant, both for the Deck Party and for the Fourth. Attendees had an enjoyable time at the parade with the theme of "Pride in Our Past… Faith in Our Future". The activities in Beachfront Park were enjoyed by all. The fireworks show had clear skies and was spectacular! Thank you so much for being a part of this great community event. We appreciate your continued dedication to helping us put on this celebration and hope you took time out from your day to celebrate with us.

Each year Crescent City – Del Norte Chamber of Commerce continues to advance its mission to support, develop and advocate for an environment that fosters sustainable community health and economic development, while maintaining our unique quality of life and giving opportunities to our members and youth to grow and prosper.

With the help of donations from supporters like you we will continue to have successful events that benefit the entire community.

Thank you again for your generous support of our July Fourth Celebration.

Sincerely,

Jeff Parmer
Executive Director
Crescent City - Del Norte Chamber of Commerce
t. (707) 464-3174 | f. (707) 464-9676
www.delnorte.org

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Del Norte County Budget Transfer Request FISCAL YEAR 15/16

FY 16 /17	Fund	Dept.	Line Item	Description	Budget Transfer Amount(s)	
					Reduce Expenditures or Increase Revenue	Increase Expenditures or Reduce Revenue
Solid Waste	422	421	20140	Household Expense		$ 470
Solid Waste	422	421	20221-065	Printing - DOC Grant 14/15	$ 1,957	
Solid Waste	422	421	20221-075	Printing - Oil Grant 14/15		$ 85
Solid Waste	422	421	20231	Professional Services		$ 4,033
Solid Waste	422	421	20232-002	Data Processing / Software		$ 226
Solid Waste	422	421	20234	Legal Counsel		$ 319
Solid Waste	422	421	20239	Transfer Station Operations		$ 10,125
Solid Waste	422	421	20240	Advertising		$ 106
Solid Waste	422	421	20240-065	Advertising - DOC Grant 14/15	$ 1,330	
Solid Waste	422	421	20285	Spec Dept Exp		$ 8
Solid Waste	422	421	20285-065	Spec Dept Exp - DOC Grant 14/15		$ 3,596
Solid Waste	422	421	20288	City Collections		$ 265
Solid Waste	422	421	20290-065	Travel - DOC Grant 14/15	$ 309	
Solid Waste	422	421	20285-075	Spec Dept Exp - Oil Grant 14/15	$ 85	
Solid Waste	422	421	70530-199	Interfund Cost Plan	$ 635	
Solid Waste	422	421	91003	Gate Tipping Fees	$ 8,162	
Solid Waste	422	421	91004	Authority Service Fees	$ 6,755	
				Total Amounts	$ 19,233	$ 19,233

Department complete and send to Auditor's Office for transfer number before sending to CAO. Round amounts up to whole dollars.

Department Justification - Include cover letter that addresses the following: 1) Reason for request; 2) Why sufficient balances exist to

Department Head Signature _____ Date _____

Auditor's Office: Sufficient balances exist per above
(Under $100 Auditor's Office approves)

Deputy Auditor-Controller _____ Date _____

TR No. _____ Budget Revision No. _____

_____Includes Revenue Appropriation _____Requires 4/5ths Vote

County AdministrativeOfficer:
(Under $1000 - CAO approves)
Recommendation: Approve _____
Deny _____
Submit for Board approval _____

County Administrative Officer _____ Date _____

Passed by Board of Commissioners of the Del Norte Solid Waste Management Authority on 16 August 2016.

Ayes:
Noes:
Absent:

Attest: Clerk of the Board

By: _____
Katherine Brewer

_____
Chair
Del Norte Solid Waste Management Authority

1.3

Del Norte Solid Waste Management Authority

1700 State Street, Crescent City, CA 95531
Phone (707) 465-1100 Fax (707) 465-1300
www.recycledelnorte.ca.gov

The Authority's mission is the management of Del Norte County solid waste and recyclable material in an environmentally sound, cost effective, efficient and safe manner while ensuring 100% regulatory compliance with law.

Director's Report

Date: 12 August 2016
To: Commissioners of the Del Norte Solid Waste Management Authority
From: Tedd Ward, M.S. – Director

File Number: **231501 – Authority Work Plans**

Summary: The Del Norte Solid Waste Management Authority continues to operate the Klamath, Gasquet and Del Norte County Transfer Stations and to provide required monitoring, accounting and reports to overseeing agencies. Authority staff provide these services without any financial support from the City of Crescent City or the County of Del Norte, and without receiving a penny of taxes. The rates charged at Authority-managed facilities continue to be lower than any comparable facilities in Humboldt or Curry Counties.

On September 10th, the Authority in partnership with Hambro/WSG and Clean Harbors will host the annual Household Hazardous Waste collection event at the Del Norte County Transfer Station from 9 AM until 2 PM. On the same day the Authority will also be hosting our second free mattress recycling event, in partnership with Hambro/WSG and the Mattress Recycling Council.

Consent Agenda Items: Item 1.3 - This is a budget transfer for fiscal year 2015-2016 in the amount of $19,233. The biggest increase is associated with Transfer Station Operations in the amount of $10,125. As the Del Norte County Transfer Station processed more tonnage than was projected, the payments due to Hambro/WSG exceeded the budgeted amount. This amount, as well as the bulk of the other expenses, were paid by the revenues (also above projections) received at this facility in the form of Gate Tipping Fees and Authority Service Fees. Expenditures for Professional Services, including services from Lawrence & Associates (for landfill water quality engineering services associated with DNSWMA's appeal of the WDR Fees), Jeannine Galatioto (assisting with labor negotiations) and IT ESP, Inc. (for computer support) also exceeded initial budget projections. Several budget lines associated with

2.1

the Dept. of Conservation (DOC) Grant for FY 14/15 (-065) were adjusted to cover the expense of purchasing new recycling containers for the Crescent City Cultural Center.

Finances and Audits: Authority Administrative Assistant Lisa Babcock and Account Clerk Katherine Brewer worked especially hard during these past few weeks as part of the additional efforts associated with fiscal year end. These activities were somewhat delayed as new staff were being trained by Ms. Babcock.

Facilities: Facilities and Programs Coordinator Kayleen Warner oversaw the vegetative maintenance at the Crescent City Landfill as part of the annual maintenance activities. We worked with Alder camp crews and used equipment rented from the Del Norte Fire Safe Council. This mowing, trimming and weed-whacking is done to control gophers and voles, which can burrow through drainage berms and cause erosion issues. With the grass mowed, hawks and other raptors can more readily hunt such burrowing creatures, keeping their numbers in check. Ms. Warner also conducted quarterly gas monitoring.

Staff are working with Creative Information Systems and Shawn Slater to update our Scale Management Software to version 10. Staff are having the new system installed on a separate computer so gate attendants will have opportunity to train on the new system before transitioning to this new version of our main software tool.

Public Outreach and Education: Staff are working with representatives from the US Forest Service to modify the grant budget and related agreements to conduct cleanups on USFS Six Rivers Forest properties in Del Norte County.

Authority staff, with additional support from staff from Recology and Hambro/WSG, and Craig Strong and Pat Black from the Solid Waste Task Force staffed a booth at the Del Norte County Fair, August 4th -7th. The Authority is a major sponsor of this vital community event (we sponsored 'Family Day,' Sunday August 7th). The Authority's continuing Fair sponsorship is paid using beverage container and oil recycling grants.

In the past month, Facilities and Programs Coordinator Kayleen Warner and myself attended the annual California Resource Recovery Association's annual conference in Sacramento as part of our ongoing training and professional networking.

Agenda Item 6.5 is the annual dues for the Rural Counties' Environmental Services JPA. This organization helps educate, coordinate and advocate on behalf of rural counties. As the changes that are being considered for CalRecycle's beverage container recycling programs are especially significant for rural counties like Del Norte, it will be important for the Authority to continue to coordinate advocacy efforts on this issue with other rural communities.

Vendor Contract Management and Oversight:

Agenda Item 8 – The primary function of the Abandoned Vehicle Abatement Service Authority (AVA) – which has the identical Board to the DNSWMA – is to

facilitate the towing and removal of abandoned vehicles. To do this, the AVA contracts with a local towing company. As the current AVA towing agreement has now expired, and the AVA received just one proposal to provide towing services, staff will recommend approval of this agreement. Towing rates under this new agreement have increased generally, which would reduce the total number of vehicles towed under the AVA program.

Compliance: Authority staff have not yet received any official notification that the State Water Resources Board is no longer trying to collect the outstanding $26,566 balance of the Waste Discharge Fees imposed by the State Water Resources Control Board (SWRCB) based on the Threat/Complexity rating issued by the RWQCB staff regarding the Crescent City Landfill. Staff have had several verbal communications from RWQCB staff indicating that soon the efforts to collect this amount will come to an end and that the Threat / Complexity rating for the Crescent City Landfill will be reduced from a '1A' to a '2A' rating.

Agenda Item 3.2 is a Change Order with Lawrence & Associates. Included in this change order are the expenses to prepare the semi-annual monitoring report for the Crescent City Landfill. Historically, these reports have been prepared by Authority staff. When asked, Gina Morrison of the North Coast Regional Water Quality Control Board said that moving forward these reports ***"...need to be prepared under the direction (and signed and stamped) by a professional civil engineer or registered geologist. And the stamping professional must have the correct professional knowledge for the task."***

Personnel / Staffing: All Authority-managed facilities were open during posted hours and all shifts were covered. Starting in July and extending through September, both the Gasquet and Klamath Transfer Stations are open one extra day each week for customer convenience. Charles Steel resigned as a refuse site attendant and another of the Authority's permanent refuse site attendants is currently on FMLA leave. So two additional staff (Ron Fleshman and Haley Smith) have been hired and are being trained as temporary / part time refuse site attendants.

As previously approved, I plan on vacationing between August 18th through September 4th. During my absence, Facilities and Programs Coordinator Kayleen Warner will serve as Acting Director.

Department Budget Report **8/12/2016 9:06:12 AM**

Fund: 422 Solid Waste
Dept: 421 Solid Waste

Line	Proj	Description	Adopted	Revised	YTD Exp	Balance	% Exp
Salaries & Benefits							
10010		Payroll	291,772.00	241,365.00	229,952.11	11,412.89	95.3
10010	078	Payroll	0.00	0.00	0.00	0.00	0
10012		Overtime	750.00	750.00	794.68	-44.68	106.0
10015		Part-time/Temp	18,000.00	28,000.00	28,417.76	-417.76	101.5
10020		Retirement	84,025.00	72,525.00	67,788.53	4,736.47	93.5
10030		Employee Benefits	99,105.00	110,605.00	110,441.77	163.23	99.9
10032		Supp Health Insurance	0.00	0.00	0.00	0.00	0
10033		Employee Life Insurance	352.00	352.00	216.90	135.10	61.6
10035		Management Life Insurance	501.00	501.00	409.18	91.82	81.7
10040		Worker's Compensation	37,352.00	37,352.00	37,352.04	-0.04	100.0
			531,857.00	**491,450.00**	**475,372.97**	**16,077.03**	
Services & Supplies							
20110		Clothing	0.00	110.00	107.51	2.49	97.7
20121		Communications	2,750.00	3,450.00	3,392.84	57.16	98.3
20140		Household Expense	4,475.00	5,595.00	5,542.51	52.49	99.1
20150		Insurance-Office	3,600.00	10,420.00	10,419.02	0.98	100.0
20151		Liability Insurance	0.00	0.00	0.00	0.00	0
20152		Vehicle Insurance	3,525.00	3,525.00	2,675.76	849.24	75.9
20155		Liability Insurance	2,345.00	2,345.00	2,345.00	0.00	100
20170		Maintenance-Equipment	350.00	350.00	250.30	99.70	71.5
20171		Maintenance-Vehicles	800.00	3,400.00	2,487.04	912.96	73.1
20175		Maintenance-Computers	554.00	554.00	51.71	502.29	9.3
20180		Maint-Structures/Improvements & TS Maint	700.00	21,700.00	18,822.56	2,877.44	86.7
20180	053	Maintenance of Structures	0.00	0.00	0.00	0.00	0
20200		Memberships	7,600.00	7,600.00	6,000.00	1,600.00	78.9
20221		Printing	500.00	488.00	370.76	117.24	76.0
20221	053	Printing - DOC Grant Oil 09/10	0.00	0.00	0.00	0.00	0
20221	054	Printing - Oil Grant 09/10	0.00	0.00	0.00	0.00	0
20221	055	Printing	0.00	0.00	0.00	0.00	0
20221	056	Printing - Oil Grant 10/11	0.00	0.00	0.00	0.00	0
20221	057	Printing - DOC Grant 10/11	0.00	0.00	0.00	0.00	0
20221	058	Printing	0.00	0.00	0.00	0.00	0
20221	059	Printing	0.00	0.00	0.00	0.00	0
20221	060	Printing-Oil Grant - 12/13	0.00	0.00	0.00	0.00	0
20221	061	Printing-Oil Grant 13/14	0.00	0.00	0.00	0.00	0
20221	062	Printing-Oil Grant 15/16	500.00	500.00	0.00	500.00	0
20221	063	Printing - Oil Grant 08/09	0.00	0.00	0.00	0.00	0
20221	065	Printing - DOC 14/15	0.00	4,500.00	0.00	4,500.00	0
20221	066	Printing - DOC Grant 08/09	0.00	0.00	0.00	0.00	0
20221	067	Printing-DOC Grant 12/13	0.00	0.00	0.00	0.00	0
20221	068	Printing- DOC 13/14	0.00	0.00	0.00	0.00	
20221	069	Printing - DOC Grant 11/12	0.00	0.00	0.00	0.00	
20221	074	Printing - Oil Grant 11/12	0.00	0.00	0.00	0.00	

2.2

Fund: 422 Solid Waste
Dept: 421 Solid Waste

Line	Proj	Description	Adopted	Revised	YTD Exp	Balance	% Exp
20221	075	Printing - Oil Grant 14/15	0.00	10.00	94.57	-84.57	945.7
20221	079	Printing - DOC Grant 15/16	0.00	3,000.00	0.00	3,000.00	0
20223		Postage	1,400.00	1,400.00	1,010.81	389.19	72.2
20224		Office Supplies	5,000.00	5,000.00	4,986.33	13.67	99.7
20227		Books/Subscriptions	109.00	109.00	0.00	109.00	0
20230		Prof Serv-Co/City	10,000.00	10,000.00	1,746.42	8,253.58	17.5
20230	070	Prof Serv-Model Contract	0.00	0.00	0.00	0.00	0
20231		Prof Serv	20,400.00	31,900.00	35,932.82	-4,032.82	112.6
20231	053	Prof Serv-DOC Grant 09/10	0.00	0.00	0.00	0.00	0
20231	055	Professional Services	0.00	0.00	0.00	0.00	0
20231	058	Professional Services	0.00	0.00	0.00	0.00	0
20231	059	Professional Services	0.00	0.00	0.00	0.00	0
20231	060	Prof Serv-Beverage Container Grant-6	0.00	0.00	0.00	0.00	0
20231	064	Professional Services - HD 16C	0.00	0.00	0.00	0.00	0
20231	066	Prof Services - DOC Grant 08/09	0.00	0.00	0.00	0.00	0
20231	067	Prof Svcs-DOC Grant 07/08	0.00	0.00	0.00	0.00	0
20231	068	Prof Svcs-Beverage Container Grant-6	0.00	0.00	0.00	0.00	0
20231	069	Prof Svcs-Beverage Container Grant 7	0.00	0.00	0.00	0.00	0
20231	078	Professional Services	0.00	0.00	0.00	0.00	0
20232		Prof Svcs-Well Monitoring	25,000.00	33,500.00	32,328.70	1,171.30	96.5
20232	001	Prof Svcs-LEA	0.00	0.00	0.00	0.00	0
20232	002	Data Processing - Software	500.00	5,140.00	5,122.33	17.67	99.7
20233		Audit	9,500.00	7,800.00	7,350.00	450.00	94.2
20234		Legal Counsel	13,000.00	14,000.00	14,318.68	-318.68	102.3
20235		Treasurer	5,000.00	7,600.00	7,600.00	0.00	100
20236		Security	500.00	1,687.00	1,682.84	4.16	99.8
20237		Credit Card Service Fees	13,500.00	13,500.00	13,331.30	168.70	98.8
20238		TS Collection	28,000.00	28,000.00	22,729.56	5,270.44	81.2
20239		Transfer Station Operations	1,840,000.00	1,914,000.00	1,924,124.86	-10,124.86	100.5
20239	001	Post Closure Maintenance	8,000.00	8,000.00	3,968.76	4,031.24	49.6
20240		Advertising/Publications	1,000.00	1,370.00	1,475.28	-105.28	107.7
20240	053	Advertising - DOC Grant 09/10	0.00	0.00	0.00	0.00	0
20240	054	Advertising - Oil Grant 09/10	0.00	0.00	0.00	0.00	0
20240	055	Advertising	0.00	0.00	0.00	0.00	0
20240	056	Advertising - Oil grant 10/11	0.00	0.00	0.00	0.00	0
20240	057	Advertising - DOC Grant 10/11	0.00	0.00	0.00	0.00	0
20240	059	Advertising	0.00	0.00	0.00	0.00	0
20240	060	Advertising Oil Grant - 12/13	0.00	0.00	0.00	0.00	0
20240	061	Advertising Oil Grant 13/14	0.00	0.00	0.00	0.00	0
20240	062	Advertising-Oil Grant 15/16	2,000.00	2,000.00	814.90	1,185.10	40.7
20240	063	Advertising - Oil Grant 08/09	0.00	0.00	0.00	0.00	0
20240	064	Advertising - HD 16C	0.00	0.00	0.00	0.00	0
20240	065	Advertising - DOC 14/15	0.00	3,000.00	1,669.80	1,330.20	55.7
20240	066	Advertising - DOC Grant 08/09	0.00	0.00	0.00	0.00	0
20240	067	Advertising- DOC Grant 12/13	0.00	0.00	0.00	0.00	0
20240	068	Advertising - DOC 13/14	0.00	0.00	0.00	0.00	0

Fund: 422 Solid Waste
Dept: 421 Solid Waste

Line	Proj	Description	Adopted	Revised	YTD Exp	Balance	% Exp
20240	069	Advertising - DOC Grant 11/12	0.00	0.00	0.00	0.00	0
20240	074	Advertising - Oil Grant 11/12	0.00	0.00	0.00	0.00	0
20240	075	Advertising - Oil Grant 14/15	0.00	4,568.00	4,567.50	0.50	100.0
20240	078	Advertising	0.00	0.00	0.00	0.00	0
20240	079	Advertising - DOC Grant 15/16	0.00	3,000.00	0.00	3,000.00	0
20250		Lease of Equipment	2,880.00	3,112.00	3,111.92	0.08	100.0
20251		Lease - Gasquet Transfer Station	650.00	662.00	661.39	0.61	99.9
20260		Rent-Office	0.00	0.00	0.00	0.00	0
20269		Lease Payment - Card Machine	0.00	0.00	0.00	0.00	0
20270		Minor Equipment	1,000.00	1,000.00	0.00	1,000.00	0
20270	059	Minor Equipment	0.00	0.00	0.00	0.00	0
20275		Small Tools	750.00	750.00	383.98	366.02	51.2
20275	059	Small Tools	0.00	0.00	0.00	0.00	0
20280		Delivery Service	600.00	600.00	270.00	330.00	45.0
20281		Household Hazardous Waste Event	32,000.00	30,898.00	30,008.00	890.00	97.1
20283		Community Clean-up	5,500.00	5,500.00	5,423.40	76.60	98.6
20285		Special Dept Expense	1,500.00	2,285.00	2,292.55	-7.55	100.3
20285	053	Spec Dept Exp - DOC Grant 09/10	0.00	0.00	0.00	0.00	0
20285	054	Spec Dept Exp - Oil Grant 09/10	0.00	0.00	0.00	0.00	0
20285	055	Special Department Expense	0.00	0.00	0.00	0.00	0
20285	056	Spec Dept Exp - Oil Grant 10/11	0.00	0.00	0.00	0.00	0
20285	057	Spec Dept Exp - DOC Grant 10/11	0.00	0.00	0.00	0.00	0
20285	059	Special Department Expense	0.00	0.00	0.00	0.00	0
20285	060	Spec Dept Exp-Oil Grant - 12/13	0.00	0.00	0.00	0.00	0
20285	061	Special Dept Exp-Oil Grant 13/14	0.00	0.00	0.00	0.00	0
20285	062	Spec Dept Exp-Oil Grant 15/16	6,500.00	6,725.00	0.00	6,725.00	0
20285	063	Spec Dept Exp - Oil Grant 08/09	0.00	0.00	0.00	0.00	0
20285	064	Spec Dept Exp - HD 16C	0.00	0.00	0.00	0.00	0
20285	065	Spec Dept Exp - DOC 14/15	0.00	4,500.00	3,456.42	1,043.58	76.8
20285	066	Spec Dept Exp - DOC Grant 08/09	0.00	0.00	0.00	0.00	0
20285	067	Spec Dept Exp-DOC Grant 12/13	0.00	0.00	0.00	0.00	0
20285	068	Spec Dept Exp - DOC 13/14	0.00	0.00	2,460.00	-2,460.00	0
20285	069	Spec Dept Exp - DOC Grant 11/12	0.00	0.00	0.00	0.00	0
20285	070	Spec Dept Exp-Model Contract	0.00	0.00	0.00	0.00	0
20285	074	Spec Dept Exp - Oil Grant 11/12	0.00	0.00	0.00	0.00	0
20285	075	Spec Dept Exp - Oil Grant 14/15	0.00	3,332.00	3,065.47	266.53	92.0
20285	078	Special Department Expense	0.00	0.00	0.00	0.00	0
20285	079	Special Dept Exp - DOC Grant 15/16	0.00	4,275.00	750.00	3,525.00	17.5
20286		Cash Over/Under	175.00	175.00	-344.20	519.20	-196.7
20287		DNDI Other Pickups	0.00	0.00	0.00	0.00	0
20288		City Collections	16,500.00	18,120.00	18,384.05	-264.05	101.5
20290		Travel	3,000.00	3,000.00	2,035.29	964.71	67.8
20290	053	Travel	0.00	0.00	0.00	0.00	0
20290	054	Travel - Oil Grant 09/10	0.00	0.00	0.00	0.00	0
20290	055	Travel & Training	0.00	0.00	0.00	0.00	0
20290	056	Travel - Oil Grant 10/11	0.00	0.00	0.00	0.00	0

Fund: 422 Solid Waste
Dept: 421 Solid Waste

Line	Proj	Description	Adopted	Revised	YTD Exp	Balance	% Exp
20290	057	Travel - DOC Grant 10/11	0.00	0.00	0.00	0.00	0
20290	058	Travel and Training	0.00	0.00	0.00	0.00	0
20290	059	Travel and Training	0.00	0.00	0.00	0.00	0
20290	060	Travel-Oil Grant - 12/13	0.00	0.00	0.00	0.00	0
20290	061	Travel - Oil Grant 13/14	0.00	0.00	0.00	0.00	0
20290	062	Travel-Oil Grant - 15/16	2,500.00	2,500.00	0.00	2,500.00	0
20290	063	Travel	0.00	0.00	0.00	0.00	0
20290	065	Travel - DOC 14/15	0.00	3,000.00	2,690.50	309.50	89.7
20290	066	Travel and Training - DOC Grant 08/09	0.00	0.00	0.00	0.00	0
20290	067	Travel DOC Grant 12/13	0.00	0.00	0.00	0.00	0
20290	068	Travel - DOC 13/14	0.00	0.00	0.00	0.00	0
20290	069	Travel - DOC Grant 11/12	0.00	0.00	0.00	0.00	0
20290	074	Travel - Oil Grant 11/12	0.00	0.00	0.00	0.00	0
20290	075	Travel - Oil Grant 14/15	0.00	0.00	0.00	0.00	0
20290	078	Travel and Training	0.00	0.00	0.00	0.00	0
20290	079	Travel - DOC Grant 15/16	0.00	4,500.00	0.00	4,500.00	0
20291		Commissioner Expense	0.00	0.00	0.00	0.00	0
20297		Vehicle Fuel	1,600.00	1,600.00	1,213.54	386.46	75.8
20300		Utilities	0.00	0.00	0.00	0.00	0
20301		State Fees	73,431.00	68,931.00	30,825.00	38,106.00	44.7
			2,159,194.00	**2,328,586.00**	**2,244,007.78**	**84,578.22**	

Other Charges

30420		Interest Payments	0.00	0.00	0.00	0.00	0
30440		Transfer Station Loan Pymts-Interest	0.00	0.00	0.00	0.00	0
30490		Depreciation Expense	98,000.00	98,000.00	94,814.00	3,186.00	96.7
30500		Department Allotment	0.00	0.00	0.00	0.00	0
			98,000.00	**98,000.00**	**94,814.00**	**3,186.00**	

Fixed Assets

40610	059	Construction	0.00	0.00	0.00	0.00	0
40610	200	Transfer Station Construction	0.00	0.00	0.00	0.00	0
40620	059	Equipment	0.00	0.00	0.00	0.00	0
40620	200	Transfer Station Construction	0.00	0.00	0.00	0.00	0
40620	300	Resource Recovery Park Development	0.00	0.00	0.00	0.00	0
40620	400	Computer Equipment	0.00	0.00	0.00	0.00	0
40620	500	Equipment	0.00	0.00	0.00	0.00	0
40620	600	Vehicle	0.00	0.00	0.00	0.00	0
			0.00	**0.00**	**0.00**	**0.00**	

Intra/Inter Fund Tranfers

70530	025	Interfund-Repayment to County	202,275.00	202,275.00	202,271.13	3.87	100.0
70530	199	Interfund-Cost Plan	53,449.00	53,449.00	54,083.00	-634.00	101.2
70800		ARC Payment OPEB	11,125.00	11,125.00	11,125.00	0.00	100
70910		Op. Transfer Out	0.00	0.00	0.00	0.00	0

Fund: 422 Solid Waste
Dept: 421 Solid Waste

Line	Proj	Description	Adopted	Revised	YTD Exp	Balance	% Exp
70910	123	Op Trans Out Bad Check Fee	0.00	0.00	75.00	-75.00	0
			266,849.00	**266,849.00**	**267,554.13**	**-705.13**	
Other Charges							
81000		Contingency	1,000.00	0.00	0.00	0.00	0
			1,000.00	**0.00**	**0.00**	**0.00**	
		Total Expenditures	**3,056,900.00**	**3,184,885.00**	**3,081,748.88**	**103,136.12**	
Revenues							
90153		Franchise Fees	-242,000.00	-258,075.00	-266,308.00	8,233.00	103.2
90210		Code Enforcement	0.00	0.00	0.00	0.00	0
90300		Interest - Solid Waste	-1,800.00	-1,800.00	-2,801.95	1,001.95	155.7
90301		Late Payment Fee	0.00	0.00	-74.28	74.28	0
90650	054	Oil Grant 09/10	0.00	0.00	0.00	0.00	0
90650	055	HD 18F Grant	0.00	0.00	0.00	0.00	0
90650	056	Oil Grant 10/11	0.00	0.00	0.00	0.00	0
90650	058	HHW Grant	0.00	0.00	0.00	0.00	0
90650	059	HHW Grant	0.00	0.00	0.00	0.00	0
90650	060	Oil Grant 12/13	0.00	0.00	0.00	0.00	0
90650	061	Oil Grant 13/14	0.00	0.00	0.00	0.00	0
90650	062	Oil Grant 15/16	-15,000.00	-15,000.00	-15,000.00	0.00	100
90650	063	Oil Grant 08/09	0.00	0.00	0.00	0.00	0
90650	064	HD 16C Grant	0.00	0.00	0.00	0.00	0
90650	066	DOC Grant 16/17	0.00	0.00	0.00	0.00	0
90650	074	Oil Grant - 11/12	0.00	0.00	0.00	0.00	0
90650	075	Oil Grant - 14/15	0.00	-7,910.00	0.00	-7,910.00	0
90650	078	HD 16F Grant	0.00	0.00	0.00	0.00	0
90650	079	DOC Grant 15/16	0.00	-15,000.00	0.00	-15,000.00	0
90830		Closure/Post Closure Fee	0.00	0.00	0.00	0.00	0
91001		Tipping Fees	0.00	0.00	0.00	0.00	0
91002		Resource Recovery Infrastructure Fee	0.00	0.00	0.00	0.00	0
91003		Gate Tipping Fees	-1,800,000.00	-1,872,000.00	-1,880,162.06	8,162.06	100.4
91003	099	Gate Tipping Fees - Prior Yr	0.00	0.00	-234.50	234.50	0
91004		Authority Service Fees	-997,000.00	-999,000.00	-1,007,363.33	8,363.33	100.8
91004	099	DNSWMA Tipping Fees - Prior Yr	0.00	0.00	-117.97	117.97	0
91070		Operating Transfer In (from 608)	0.00	0.00	0.00	0.00	0
91070	025	Op Tran in from County (Loan)	0.00	0.00	0.00	0.00	0
91075	025	Op Transfer in from County	0.00	0.00	0.00	0.00	0
91121		Misc Reimbursements	-1,000.00	-1,000.00	-2,171.05	1,171.05	217.1
91121	123	Bad Check Fee Reimb	-100.00	-100.00	-200.00	100.00	200
91122		Insurance Recovery	0.00	0.00	0.00	0.00	0
91124		Misc Revenue	0.00	0.00	0.00	0.00	0
91129	053	Doc Grant 09/10	0.00	0.00	0.00	0.00	0
91129	057	DOC Grant 10/11	0.00	0.00	0.00	0.00	0
91129	065	DOC Grant 14/15	0.00	-15,000.00	-15,000.00	0.00	100

Fund: 422 Solid Waste
Dept: 421 Solid Waste

Line	Proj	Description	Adopted	Revised	YTD Exp	Balance	% Exp
91129	066	DOC Grant 08/09	0.00	0.00	0.00	0.00	0
91129	067	DOC Grant - 12/13	0.00	0.00	0.00	0.00	0
91129	068	DOC Grant 13/14	0.00	0.00	0.00	0.00	0
91129	069	DOC Grant 11/12	0.00	0.00	0.00	0.00	0
91130		Construction Loan	0.00	0.00	0.00	0.00	0
			-3,056,900.00	**-3,184,885.00**	**-3,189,433.14**	**4,548.14**	
		Net Cost	**0.00**	**0.00**	**-107,684.26**	**107,684.26**	

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07/08/16

Del Norte Solid Waste Management Authority
A/R Aging Summary
As of July 3, 2016

	Current	1 - 30	31 - 60	61 - 90	> 90	TOTAL
Affordable Home & Rental Rep.	56.11	0.00	0.00	0.00	0.00	56.11
Agricultural Commission(solid waste only)	31.28	0.00	0.00	0.00	0.00	31.28
Alexandre EcoDairy Farms	240.23	0.00	0.00	0.00	0.00	240.23
Benner Mini Storage	374.90	0.00	0.00	0.00	0.00	374.90
Borges Dairy	245.67	272.75	237.39	0.00	0.00	755.81
Brown, Hector	901.80	0.00	0.00	0.00	0.00	901.80
Cal-Ore LIFE FLIGHT	35.54	0.00	0.00	0.00	0.00	35.54
Cal-Trans	160.37	0.00	0.00	0.00	0.00	160.37
California Auto Image	302.78	0.00	0.00	0.00	0.00	302.78
California Construction Co.	18.47	0.00	0.00	0.00	0.00	18.47
California Dept. Parks & Rec.	959.52	691.83	0.00	0.00	0.00	1,651.35
Castlerock Countertop's	58.28	0.00	0.00	0.00	0.00	58.28
Certified Construction	0.00	0.00	0.00	0.00	6.90	6.90
Certified Plumbing Co.	0.00	0.00	0.00	0.00	12.76	12.76
Cetnar Construction Inc.	63.96	41.23	82.44	0.00	0.00	187.63
Chimney Kraft	0.00	12.79	0.00	0.00	0.00	12.79
City of Crescent City.	25.57	38.73	0.00	0.00	0.00	64.30
College of the Redwoods	130.57	0.00	0.00	0.00	0.00	130.57
Cornerstone Assembly of God	211.80	0.00	0.00	0.00	0.00	211.80
Crescent Ace Hardware.	361.06	0.00	0.00	0.00	0.00	361.06
Crescent City KOA	528.80	0.00	0.00	0.00	0.00	528.80
Crescent Fire Protection Dist.	1.49	0.00	0.00	0.00	0.00	1.49
Crescent Senior Estates	35.86	0.00	0.00	0.00	0.00	35.86
Del Norte Ambulance	48.31	0.00	0.00	0.00	0.00	48.31
Del Norte Realty	56.46	0.00	0.00	0.00	0.00	56.46
Del Norte Roofing	0.00	0.00	12.79	0.00	0.00	12.79
DN Unified School District	780.53	0.00	0.00	0.00	0.00	780.53
DNC Abandoned Vehicle Abatement	1,619.69	0.00	0.00	0.00	0.00	1,619.69
Elk Valley Storage	17.06	14.22	0.00	0.00	0.00	31.28
Ellers Fort Dick Market	243.08	0.00	0.00	0.00	0.00	243.08
G. H. Outreach	466.30	0.00	0.00	0.00	0.00	466.30
Golden State Construction	369.58	0.00	0.00	0.00	0.00	369.58
GR Construction	58.28	0.00	0.00	0.00	0.00	58.28
Green Scapes	126.00	0.00	0.00	0.00	0.00	126.00
Griffin's Furniture Outlet	7.10	0.00	0.00	0.00	0.00	7.10
Hambro/Waste Solutions Group	26.56	0.00	0.00	0.00	0.00	26.56
Hank's Hauling	280.65	0.00	0.00	0.00	0.00	280.65
Hartley Construction	78.19	0.00	0.00	0.00	0.00	78.19
HASP / Jordan Recovery Centers	271.50	579.98	0.00	0.00	0.00	851.48
Hemmingsen Contracting Company	3,552.33	0.00	0.00	0.00	0.00	3,552.33
Hintz Construction*CLOSED*	0.00	0.00	0.00	0.00	127.60	127.60
Hiouchi Community Fellowship	14.20	49.75	0.00	0.00	0.00	63.95
Investment Realty	126.46	0.00	0.00	0.00	0.00	126.46
Kirkland's Lawn & Yard Service	1,418.82	0.00	0.00	0.00	0.00	1,418.82
Kraft, Tom & Patti	65.39	0.00	0.00	0.00	0.00	65.39
Larson Services	28.43	25.59	0.00	0.00	0.00	54.02
Madrone Court	153.80	0.00	0.00	0.00	0.00	153.80
Malloroy Construction	8.60	0.00	0.00	0.00	0.00	8.60
Mastaloudis Homes Inc.	24.74	0.00	0.00	0.00	0.00	24.74
McCullough Construction, Inc.	753.50	7,739.52	0.00	0.00	0.00	8,493.02
Mountain Power Tree Co	65.70	0.00	0.00	0.00	0.00	65.70
Mow Blow and Go	89.96	0.00	0.00	0.00	0.00	89.96
Murray Construction	199.03	0.00	0.00	0.00	0.00	199.03
New Dawn Support Services	207.86	0.00	0.00	0.00	0.00	207.86
Niehoff Construction	125.67	0.00	0.00	0.00	0.00	125.67
North Woods Realty	50.92	0.00	0.00	0.00	0.00	50.92
Northridge Electric	19.89	0.00	0.00	0.00	0.00	19.89
Pacific Northwest Physical Therapy	14.49	42.64	0.00	0.00	0.00	57.13
Pappas Dry Wall	38.37	0.00	0.00	0.00	0.00	38.37
Parkway Feed	28.43	0.00	0.00	0.00	0.00	28.43
Peasley's Property Mang.	313.43	0.00	0.00	0.00	0.00	313.43
Pebble Beach Apartments	5.98	0.00	0.00	0.00	0.00	5.98
Plunkett's Family Painting	96.31	0.00	0.00	0.00	0.00	96.31
Porter's Trucking *CLOSED*	0.00	0.00	0.00	0.00	2,033.84	2,033.84
Ray's Mobile Home Service	0.00	232.02	0.00	0.00	0.00	232.02
Recology Del Norte (Franchise)	121,141.44	0.00	0.00	0.00	0.00	121,141.44

Del Norte Solid Waste Management Authority
A/R Aging Summary
As of July 3, 2016

	Current	1 - 30	31 - 60	61 - 90	> 90	TOTAL
Recology Del Norte (Prison)	10,631.41	0.00	0.00	0.00	0.00	10,631.41
Red Sky Roofing	13,375.12	15,108.19	0.00	0.00	0.00	28,483.31
Redwood Community Action Agency	287.17	0.00	0.00	0.00	0.00	287.17
Redwood National Park	2,589.12	0.00	0.00	0.00	0.00	2,589.12
Reservation Ranch	798.88	0.00	0.00	0.00	0.00	798.88
Richterich & Jones Const	73.92	0.00	0.00	0.00	0.00	73.92
Rick Parker Construction	201.38	0.00	0.00	0.00	0.00	201.38
Ritchie Homes	72.50	42.65	0.00	0.00	0.00	115.15
Rogers, Luu T.	0.00	101.56	0.00	0.00	0.00	101.56
Roy Rook Construction	17.06	0.00	0.00	0.00	0.00	17.06
Rumiano Cheese Company	11.99	0.00	0.00	0.00	0.00	11.99
Rural Human Services	3.55	0.00	0.00	0.00	0.00	3.55
Schnacker's General Hauling	811.82	0.00	0.00	0.00	0.00	811.82
Seawood Village	2,169.22	2,577.32	0.00	0.00	0.00	4,746.54
Shangri-La Trailer Court	76.76	0.00	0.00	0.00	0.00	76.76
Smith River Rancheria	0.00	2,290.85	0.00	0.00	0.00	2,290.85
Sprint Courier Service	239.89	0.00	0.00	0.00	0.00	239.89
Spruce Haven Mobile Home Park	23.40	0.00	0.00	0.00	0.00	23.40
Steel	8.53	79.60	95.91	0.00	0.00	184.04
Stephen F White Gen.Cont. Inc.	36.74	0.00	0.00	0.00	0.00	36.74
Stone Roofing	5,784.08	0.00	0.00	0.00	0.00	5,784.08
Sutter Coast Hospital	210.38	0.00	0.00	0.00	0.00	210.38
Swanson, Ray C. Construction	55.44	0.00	0.00	0.00	0.00	55.44
Tab & Associates	285.74	0.00	0.00	0.00	0.00	285.74
Tim Haban Construction	41.23	0.00	0.00	0.00	0.00	41.23
Van Arsdale Construction	1,152.83	0.00	0.00	0.00	0.00	1,152.83
Van Nocker's Cleaning	15.63	0.00	0.00	0.00	0.00	15.63
Wigley Contracting	65.39	0.00	0.00	0.00	0.00	65.39
Yurok Economic Dev Corp	154.10	0.00	0.00	0.00	0.00	154.10
Yurok Tribe	591.69	0.00	0.00	0.00	0.00	591.69
TOTAL	**177,522.07**	**29,941.22**	**428.53**	**0.00**	**2,181.10**	**210,072.92**

Del Norte Solid Waste Management Authority
A/R Aging Summary
As of August 3, 2016

	Current	1 - 30	31 - 60	61 - 90	> 90	TOTAL
Affordable Home & Rental Rep.	44.72	0.00	0.00	0.00	0.00	44.72
Alexandre EcoDairy Farms	578.56	0.00	0.00	0.00	0.00	578.56
Atlas Field Services, Inc.	213.06	0.00	0.00	0.00	0.00	213.06
Babich Construction	130.78	0.00	0.00	0.00	0.00	130.78
Bart Kast Builders	160.63	0.00	0.00	0.00	0.00	160.63
Benner Mini Storage	626.40	0.00	0.00	0.00	0.00	626.40
Borges Dairy	262.98	245.67	0.00	0.00	0.00	508.65
Brown, Hector	1,034.85	0.00	0.00	0.00	0.00	1,034.85
Cal-Ore LIFE FLIGHT	7.10	0.00	0.00	0.00	0.00	7.10
California Auto Image	85.29	0.00	0.00	0.00	0.00	85.29
California Dept. Parks & Rec.	1,266.65	0.00	0.00	0.00	0.00	1,266.65
Castlerock Countertop's	24.17	0.00	0.00	0.00	0.00	24.17
Certified Construction	0.00	0.00	0.00	0.00	6.90	6.90
Certified Plumbing Co.	0.00	0.00	0.00	0.00	12.76	12.76
Cetnar Construction Inc.	29.85	0.00	0.00	0.00	0.00	29.85
City of Crescent City.	141.89	0.00	38.73	0.00	0.00	180.62
College of the Redwoods	247.42	0.00	0.00	0.00	0.00	247.42
Cornerstone Assembly of God	199.01	0.00	0.00	0.00	0.00	199.01
Crescent Ace Hardware.	375.28	0.00	0.00	0.00	0.00	375.28
Crescent City KOA	673.81	0.00	0.00	0.00	0.00	673.81
Crescent Fire Protection Dist.	52.94	0.00	0.00	0.00	0.00	52.94
Crescent Senior Estates	9.46	0.00	0.00	0.00	0.00	9.46
Del Norte Ambulance	61.12	0.18	0.00	0.00	0.00	61.30
Del Norte Realty	126.63	56.46	0.00	0.00	0.00	183.09
Del Norte Roofing	19.90	0.00	0.00	0.00	0.00	19.90
DN Unified School District	378.89	0.00	0.00	0.00	0.00	378.89
DNC Public Nuisance Abatement	149.87	0.00	0.00	0.00	0.00	149.87
Elk Valley Rancheria	36.53	0.00	0.00	0.00	0.00	36.53
Elk Valley Storage	81.03	17.06	14.22	0.00	0.00	112.31
Ellers Fort Dick Market	260.13	0.00	0.00	0.00	0.00	260.13
G. H. Outreach	411.90	0.00	0.00	0.00	0.00	411.90
Golden State Construction	156.37	0.00	0.00	0.00	0.00	156.37
GR Construction	160.63	58.28	0.00	0.00	0.00	218.91
Green Scapes	48.81	126.00	0.00	0.00	0.00	174.81
Griffin's Furniture Outlet	131.36	7.10	0.00	0.00	0.00	138.46
Hambro/Waste Solutions Group	26.00	0.00	0.00	0.00	0.00	26.00
Hank's Hauling	69.65	0.00	0.00	0.00	0.00	69.65
Hartley Construction	170.58	0.00	0.00	0.00	0.00	170.58
HASP / Jordan Recovery Centers	249.76	271.50	329.98	0.00	0.00	851.24
Hemmingsen Contracting Company	0.00	3,552.33	0.00	0.00	0.00	3,552.33
Hintz Construction*CLOSED*	0.00	0.00	0.00	0.00	127.60	127.60
Hiouchi Community Fellowship	0.00	14.20	0.00	0.00	0.00	14.20
Humboldt Moving & Storage	31.27	0.00	0.00	0.00	0.00	31.27
Investment Realty	126.52	0.00	0.00	0.00	0.00	126.52
Kays, Matthew J.	74.29	0.00	0.00	0.00	0.00	74.29
Kirkland's Lawn & Yard Service	1,758.66	0.00	0.00	0.00	0.00	1,758.66
Kraft, Tom & Patti	98.08	0.00	0.00	0.00	0.00	98.08
Larson Services	29.85	0.00	0.00	0.00	0.00	29.85
LNL Design and Construction	38.04	0.00	0.00	0.00	0.00	38.04
Loren Stonebrink Const	240.23	0.00	0.00	0.00	0.00	240.23
Madrone Court	0.00	153.80	0.00	0.00	0.00	153.80
Malloroy Construction	7.10	0.00	0.00	0.00	0.00	7.10
Mastaloudis Homes Inc.	27.07	0.00	0.00	0.00	0.00	27.07
McCullough Construction, Inc.	715.32	0.00	0.00	0.00	0.00	715.32
Mountain Power Tree Co	71.99	0.00	0.00	0.00	0.00	71.99
Mow Blow and Go	64.82	0.00	0.00	0.00	0.00	64.82
Murray Construction	167.73	0.00	0.00	0.00	0.00	167.73
New Dawn Support Services	267.00	0.00	0.00	0.00	0.00	267.00
Niehoff Construction	7.11	0.00	0.00	0.00	0.00	7.11
North Coast Properties	67.53	0.00	0.00	0.00	0.00	67.53
North Woods Realty	7.11	0.00	0.00	0.00	0.00	7.11
Northcoast Marine Mammal Center	7.10	0.00	0.00	0.00	0.00	7.10
Northridge Electric	17.06	0.00	0.00	0.00	0.00	17.06
Pacific Northwest Physical Therapy	9.95	14.49	42.64	0.00	0.00	67.08
Pappas Dry Wall	1,275.07	0.00	0.00	0.00	0.00	1,275.07
Parkway Feed	108.03	0.00	0.00	0.00	0.00	108.03

Del Norte Solid Waste Management Authority
A/R Aging Summary
As of August 3, 2016

	Current	1 - 30	31 - 60	61 - 90	> 90	TOTAL
Pelican Bay Evangelical Free Church	41.18	0.00	0.00	0.00	0.00	41.18
Pelican Bay Roofing Co.	261.56	0.00	0.00	0.00	0.00	261.56
Plunkett's Family Painting	100.39	96.31	0.00	0.00	0.00	196.70
Porter's Trucking *CLOSED*	0.00	0.00	0.00	0.00	2,033.84	2,033.84
Ray's Mobile Home Service	93.62	0.00	0.00	0.00	0.00	93.62
Recology Del Norte (Franchise)	108,167.87	0.00	0.00	0.00	0.00	108,167.87
Recology Del Norte (Prison)	10,639.92	0.00	0.00	0.00	0.00	10,639.92
Red Sky Roofing	14,551.92	0.00	0.00	0.00	0.00	14,551.92
Redwood Community Action Agency	72.50	0.00	0.00	0.00	0.00	72.50
Redwood National Park	3,084.54	0.00	0.00	0.00	0.00	3,084.54
Reservation Ranch	1,111.62	0.00	0.00	0.00	0.00	1,111.62
Richterich & Jones Const	260.14	0.00	0.00	0.00	0.00	260.14
Rick Parker Construction	471.94	0.00	0.00	0.00	0.00	471.94
Ritchie Homes	120.83	0.00	0.00	0.00	0.00	120.83
Roy Rook Construction	152.10	0.00	0.00	0.00	0.00	152.10
Rumiano Cheese Company	82.44	0.00	0.00	0.00	0.00	82.44
Schnacker's General Hauling	12.79	0.00	0.00	0.00	0.00	12.79
Seawood Village	2,750.21	2,169.22	0.00	0.00	0.00	4,919.43
Smith River Equipment	385.23	0.00	0.00	0.00	0.00	385.23
Smith River Rancheria	109.45	0.00	0.00	0.00	0.00	109.45
Sprint Courier Service	271.33	239.89	0.00	0.00	0.00	511.22
Steel	34.11	8.53	75.51	0.00	0.00	118.15
Stephen F White Gen.Cont. Inc.	25.54	0.00	0.00	0.00	0.00	25.54
Stone Roofing	6,863.03	5,784.08	0.00	0.00	0.00	12,647.11
Sutter Coast Hospital	41.22	0.00	0.00	0.00	0.00	41.22
Swanson, Ray C. Construction	264.29	0.00	0.00	0.00	0.00	264.29
Tab & Associates	322.84	0.00	0.00	0.00	0.00	322.84
Tim Haban Construction	22.75	0.00	0.00	0.00	0.00	22.75
Van Arsdale Construction	743.45	1,152.83	0.00	0.00	0.00	1,896.28
Van Nocker's Cleaning	7.10	0.00	0.00	0.00	0.00	7.10
Wetherwell Ranch Inc.	81.02	0.00	0.00	0.00	0.00	81.02
Yurok Economic Dev Corp	0.00	52.05	0.00	0.00	0.00	52.05
TOTAL	165,067.87	14,019.98	501.08	0.00	2,181.10	181,770.03

CLAIMS APPROVED BY THE DIRECTOR

Del Norte Solid Waste Management Authority
Claims for July 2016

Date Paid	Paid to:	Budget	Amt. Paid	Description
7/1/2016	Del Norte County Community Dev Dept	20239-001	$ 154.91	INV 2016-35 Landfill Maintenance 15/16
	Del Norte County Community Dev Dept	20230	$ 84.50	INV 2016-35 Professional - County 15/16
7/14/2016	Recology Del Norte	20238	$ 924.00	INV 0001126 GTS bin Service June 2016 15/16
	Recology Del Norte	20238	$ 2,032.80	INV 0001127 KTS bin Service June 2016 15/16
7/14/2016	US Bank	20285-065	$ 1,416.42	Clearstream Recycling Inc bags 15/16
	US Bank	20223	$ 7.00	UPS - Postage -TOPAZ 15/16
	US Bank	20223	$ 15.50	UPS - Postage -TOPAZ 15/16
	US Bank	20285	$ 10.00	Reimbursable charges 15/16
	US Bank	20290-065	$ 575.00	CRRA Conference Registration - KW 15/16
	US Bank	20290-065	$ 575.00	CRRA Conference Registration - TW 15/16
	US Bank	20285-079	$ 200.00	CRRA Membership Dues - KW 15/16
	US Bank	20285-079	$ 200.00	CRRA Membership Dues - TW 15/16
7/14/2016	Quill	20224	$ 78.81	Office supplies 15/16
7/14/2016	Howard's Body Shop	20171	$ 1,596.44	INV 0000040 96 Toyota 4Runner Paint Cab top 15/16
7/14/2016	Hambro WSG	20239	$ 177,453.73	INV 2016-06 Material Management June 2016 15/16
7/14/2016	G H Outreach	20285-079	$ 125.00	INV 068037 June Recycling Service 15/16
7/14/2016	Curry Transfer - Roto Rooter	20140	$ 307.60	GTS & KTS June Porta Potty Service 15/16
7/14/2016	Black & Rice LLP	20234	$ 1,019.20	Statement for June Legal Services 15/16
7/14/2016	Bickmore Risk Services	20231	$ 2,300.00	INV BRS-0013757 Professional Fees 15/16
7/14/2016	DNSWMA - Petty Cash	20140	$ 3.99	Safeway -Vinegar weed killer 15/16
	DNSWMA - Petty Cash	20140	$ 5.39	Dollar Tree Store Crayons-Youth and family fair 15/16
	DNSWMA - Petty Cash	20140	$ 10.00	ST Vincent dePaul-Temp office desk for KTS 15/16
	DNSWMA - Petty Cash	20140	$ 2.46	Walmart-Baggies 15/16
	DNSWMA - Petty Cash	20223	$ 6.00	Postage Stamps 15/16
	DNSWMA - Petty Cash	20223	$ 0.94	Postage Due- Underpaid 15/16
	DNSWMA - Petty Cash	20275	$ 10.76	Crescent Ace -Sockets for GTS & KTS 15/16
7/14/2016	Ricoh USA, Inc.	20250	$ 249.98	INV 97138920 July Copier Rental Fees
7/15/2016	Charter Spectrum Business	20121	$ 89.97	Office Phone Services 7/19-8/18/2016
7/19/2016	Lawrence & Associates	20231	$ 2,648.91	INV 23633 Proj 015063.00 May 2016 15/16
7/19/2016	U S Cellular	20121	$ 140.03	INV 0144718168 07/04-08/03/2016
7/21/2016	Del Norte County	70530-025	$ 160,177.90	Statement Sub-lease agreement 08/2016
7/21/2016	Mission Linen	20140	$ 61.72	Cust # 218923 Linen Service July 2016
7/21/2016	Ricoh USA, Inc.	20250	$ 282.50	Final Lease payment and property taxes for Ricoh copier
7/26/2016	Jeannine Galatioto	20231	$ 490.00	Statement for Professional Services for June 2016
7/26/2016	Jeannine Galatioto	20231	$ 40.00	Statement for Professional Services for July 2016
7/28/2016	Del Norte Agricultural Commissioner	20285	$ 600.00	Device and Location Fees - Scales
	Del Norte Agricultural Commissioner	20230	$ 24.00	Administrative Fees
	TOTAL		$ 353,920.46	

2.3

DNSWMA
GRAND TOTALS
JUNE 2016

	Amount to 422-421 91003	Amount to 422-421 91004	TOTAL AMOUNT
	66.53%	**33.47%**	
DNCTS Cash Total	34,135.26	17,172.81	*51,308.07*
DNCTS Charge Total	121,931.25	61,341.34	*183,272.59*
DNCTS Credit/Debit	21,387.22	10,759.51	*32,146.73*
DNCTS Totals	177,453.73	89,273.66	*266,727.39*
Klamath Cash Total		4,092.46	*4,092.46*
Klamath Charge Total		154.10	*154.10*
Klamath Totals		4,246.56	*4,246.56*
Gasquet Cash Total		1,516.18	*1,516.18*
Gasquet Charge Total		8.60	*8.60*
Gasquet Totals		1,524.78	*1,524.78*
Adjustments			
GRAND TOTALS	***177,453.73***	***95,045.00***	***272,498.73***

2.4

MONTHLY SPLIT SHEET
DNSWMA TRANSFER STATION
MONTH: JUNE 2016

Date	Cash	Checks	Cash/Check Total	Visa	Master	Discover	AmExp	Credit Card Total	Charges	Grand Total	66.53% 91003	33.47% 91004	20286	Total	
1	$ 1,789.84	$ 247.99	$ 2,037.83	$ 743.20	$ 173.41			$ 916.61	$ 9,169.39	$ 12,123.83	$ 1,355.77	$ 682.06	$5.80	$ 2,043.63	
2	$ 1,654.99	$ 348.27	$ 2,003.26	$ 1,402.16	$ 87.43	$ 44.06		$ 1,533.65	$ 8,285.80	$ 11,822.71	$ 1,332.77	$ 670.49	$0.01	$ 2,003.27	
3	$ 1,367.19	$1,214.16	$ 2,581.35	$ 665.33	$ 68.75	$ 18.48	$ 7.10	$ 759.66	$ 7,612.82	$ 10,953.83	$ 1,717.37	$ 863.98	$20.85	$ 2,602.20	
4	$ 1,934.42	$ 407.97	$ 2,342.39	$ 1,843.94	$ 112.97		$ 3.49	$ 1,960.40	$ 4,788.62	$ 9,091.41	$ 1,558.39	$ 784.00	$1.89	$ 2,344.28	
5	$ 2,662.09	$ 481.95	$ 3,144.04	$ 1,195.30	$ 51.16			$ 1,246.46	$ 86.91	$ 4,477.41	$ 2,091.73	$ 1,052.31	($0.25)	$ 3,143.79	
6	$ 1,678.79	$ 230.27	$ 1,909.06	$ 696.59	$ 14.21		$ 7.61	$ 718.41	$ 7,688.16	$ 10,315.63	$ 1,270.10	$ 638.96	$0.01	$ 1,909.07	
7	$ 1,509.19	$ 268.30	$ 1,777.49	$ 464.94	$ 7.11		$ 14.22	$ 486.27	$ 8,725.31	$ 10,989.07	$ 1,182.56	$ 594.93	$0.63	$ 1,778.12	
8	$ 1,112.16	$ 261.97	$ 1,374.13	$ 845.01	$ 106.97			$ 951.98	$ 4,395.86	$ 6,721.97	$ 914.21	$ 459.92	($0.51)	$ 1,373.62	
9	$ 1,652.95	$ 402.56	$ 2,055.51	$ 1,164.21	$ 16.64			$ 1,180.85	$ 7,595.47	$ 10,831.83	$ 1,367.53	$ 687.98	$0.29	$ 2,055.80	
10	$ 1,324.67	$ 326.92	$ 1,651.59	$ 1,215.58	$ 206.70			$ 1,422.28	$ 6,960.19	$ 10,034.06	$ 1,098.80	$ 552.79	($1.15)	$ 1,650.44	
11	$ 1,231.47	$ 356.80	$ 1,588.27	$ 970.57	$ 102.00	$ 18.48		$ 1,091.05	$ 1,377.60	$ 4,056.92	$ 1,056.68	$ 531.59	($0.02)	$ 1,588.25	
12	$ 2,095.32	$ 341.06	$ 2,436.38	$ 1,160.04	$ 7.10		$ 18.48	$ 1,185.62	$ 867.47	$ 4,489.47	$ 1,620.92	$ 815.46		$ 2,436.38	
13	$ 1,773.50	$ 193.55	$ 1,967.05	$ 747.21	$ 81.89			$ 829.10	$ 7,310.14	$ 10,106.29	$ 1,308.68	$ 658.37	$21.97	$ 1,989.02	
14	$ 1,486.07	$ 231.52	$ 1,717.59	$ 1,102.34	$ 51.17			$ 1,153.51	$ 8,592.11	$ 11,463.21	$ 1,142.71	$ 574.88	($1.87)	$ 1,715.72	
15	$ 1,251.83	$ 179.11	$ 1,430.94	$ 551.70	$ 131.85	$ 9.95		$ 693.50	$ 6,591.30	$ 8,715.74	$ 952.00	$ 478.94		$ 1,430.94	
16	$ 1,131.71	$ 235.02	$ 1,366.73	$ 1,405.71	$ 102.35			$ 1,508.06	$ 8,275.42	$ 11,150.21	$ 909.29	$ 457.44	$0.65	$ 1,367.38	
17	$ 1,691.10	$ 145.39	$ 1,836.49	$ 1,303.64	$ 185.59	$ 93.82	$ 7.10	$ 1,590.15	$ 6,146.11	$ 9,572.75	$ 1,221.82	$ 614.67	($0.26)	$ 1,836.23	
18	$ 1,668.27	$ 288.53	$ 1,956.80	$ 994.76			$ 11.37	$ 1,006.13	$ 2,974.14	$ 5,937.07	$ 1,301.86	$ 654.94	$1.10	$ 1,957.90	
19	$ 1,059.29	$ 227.41	$ 1,286.70	$ 914.52	$ 40.29			$ 954.81	$ 958.10	$ 3,199.61	$ 856.04	$ 430.66	$0.10	$ 1,286.80	
20	$ 1,463.73	$ 175.45	$ 1,639.18	$ 1,125.34	$ 17.06		$ 48.80	$ 1,191.20	$ 9,824.33	$ 12,654.71	$ 1,090.55	$ 548.63	$0.05	$ 1,639.23	oil paid
21	$ 1,300.32	$ 123.32	$ 1,423.64	$ 1,092.26		$ 21.69		$ 1,113.95	$ 8,643.68	$ 11,181.27	$ 947.15	$ 476.49	$24.84	$ 1,448.48	out $4.00
22	$ 1,106.15	$ 122.24	$ 1,228.39	$ 524.59	$ 89.19			$ 613.78	$ 6,187.51	$ 8,029.68	$ 817.25	$ 411.14	$0.75	$ 1,229.14	
23	$ 1,085.83	$ 83.87	$ 1,169.70	$ 671.47	$ 35.53		$ 265.82	$ 972.82	$ 8,073.10	$ 10,215.62	$ 778.20	$ 391.50	($0.08)	$ 1,169.62	
24	$ 1,137.64	$ 29.42	$ 1,167.06	$ 1,094.92	$ 21.32	$ 11.37		$ 1,127.61	$ 6,966.86	$ 9,261.53	$ 776.45	$ 390.61	$5.26	$ 1,172.32	
25	$ 1,437.88	$ 184.94	$ 1,622.82	$ 1,325.13	$ 12.79	$ 154.00		$ 1,491.92	$ 164.90	$ 3,279.64	$ 1,079.66	$ 543.16	$5.09	$ 1,627.91	
26	$ 1,361.97	$ 242.28	$ 1,604.25	$ 815.40	$ 106.61	$ 40.43		$ 962.44	$ 1,193.87	$ 3,760.56	$ 1,067.31	$ 536.94	($21.57)	$ 1,582.68	
27	$ 1,212.33	$ 120.76	$ 1,333.09	$ 1,137.33	$ 28.43	$ 75.00	$ 8.96	$ 1,249.72	$ 9,698.65	$ 12,281.46	$ 886.90	$ 446.19	($0.27)	$ 1,332.82	
28	$ 1,317.85	$ 130.77	$ 1,448.62	$ 713.93	$ 11.38			$ 725.31	$ 10,913.44	$ 13,087.37	$ 963.77	$ 484.85	$4.75	$ 1,453.37	
29	$ 820.18	$ 81.67	$ 901.85	$ 551.24	$ 8.53			$ 559.77	$ 7,367.06	$ 8,828.68	$ 600.00	$ 301.85	($0.10)	$ 901.75	
30	$ 1,166.06	$ 139.81	$ 1,305.87	$ 811.82	$ 137.89			$ 949.71	$ 5,838.27	$ 8,093.85	$ 868.80	$ 437.07	$0.37	$ 1,306.24	
TOTALS	$43,484.79	$7,823.28	$ 51,308.07	$29,250.18	$2,016.32	$ 487.28	$ 392.95	$32,146.73	$183,272.59	$266,727.39	$34,135.26	$17,172.81	$ 68.33	$51,376.40	

DAILY TICKET REPORT				
DNSWMA TRANSFER STATION				
MONTH: June 2016				
Date	BEGIN	END	VOIDED TICKETS	TICKET COUNT
1	881094	881324	3	**228**
2	881325	881545		**221**
3	881546	881738	2	**191**
4	881739	881993	3	**252**
5	881994	882232		**239**
6	882233	882433	2	**199**
7	882434	882599	2	**164**
8	882600	882746		**147**
9	882747	882923		**177**
10	882924	883131	1	**207**
11	883132	883319	1	**187**
12	883320	883544	1	**224**
13	883545	883759		**215**
14	883760	883954	1	**194**
15	883955	884134		**180**
16	884135	884293		**159**
17	884294	884500	2	**205**
18	884501	884702		**202**
19	884703	884860		**158**
20	884861	885058		**198**
21	885059	885267		**209**
22	885268	885438	1	**170**
23	885439	885603		**165**
24	885604	885803	3	**197**
25	885804	886013		**210**
26	886014	886211		**198**
27	886212	886428		**217**
28	886429	886630		**202**
29	886631	886806	3	**173**
30	886807	886983		**177**
TOTAL			**25**	**5865**

DNSWMA
GASQUET TRANSFER STATION - CASH
Jun-16

Date	Amount to 422-421 91004	TOTAL CASH AMOUNT
June 4, 2016	312.96	$ 312.96
June 11, 2016	413.51	$ 413.51
June 18, 2016	509.64	$ 509.64
June 25, 2016	280.07	$ 280.07
		$ 0.00
		$ 0.00
TOTAL	***1516.18***	***$ 1,516.18***

DNSWMA
KLAMATH TRANSFER STATION CASH
JUNE 2016

Date	Amount to 422-421 91004	TOTAL CASH AMOUNT
June 1, 2016	342.24	$ 342.24
June 5, 2016	534.77	$ 534.77
June 8, 2016	436.86	$ 436.86
June 12, 2016	600.19	$ 600.19
June 15, 2016	493.07	$ 493.07
June 19, 2016	447.30	$ 447.30
June 22, 2016	235.49	$ 235.49
June 26, 2016	812.30	$ 812.30
June 29, 2016	190.24	$ 190.24
TOTAL	***4,092.46***	***$ 4,092.46***

GASQUET TRANSFER STATION
2015 / 2016 Monthly Totals

Month	Cash	Checks	TOTAL Deposit	Over / Short	Sales	TOTAL Sales	Charges	Tickets
July	$ 1,289.57	$ 518.99	$ 1,808.56	$ 8.85	$ 1,799.71	$ 1,808.56	$ -	173
August	$ 1,750.01	$ 313.67	$ 2,063.68	$ 11.12	$ 2,052.56	$ 2,063.68	$ 8.60	189
September	$ 1,346.49	$ 331.47	$ 1,677.96	$ 9.30	$ 1,668.66	$ 1,677.96	$ -	155
October	$ 926.88	$ 211.21	$ 1,138.09	$ 47.78	$ 1,090.31	$ 1,138.09	$ 8.60	112
November	$ 868.90	$ 248.92	$ 1,117.82	$ (2.41)	$ 1,120.23	$ 1,117.82	$ 71.19	118
December	$ 668.47	$ 239.58	$ 908.05	$ 9.11	$ 898.94	$ 908.05	$ 52.58	90
January	$ 1,033.24	$ 283.14	$ 1,316.38	$ 0.76	$ 1,315.62	$ 1,316.38	$ 152.32	135
February	$ 978.39	$ 246.07	$ 1,224.46	$ 0.03	$ 1,224.43	$ 1,224.46	$ 37.62	109
March	$ 748.80	$ 160.75	$ 909.55	$ 13.10	$ 896.45	$ 909.55	$ -	91
April	$ 1,324.50	$ 382.97	$ 1,707.47	$ 0.10	$ 1,707.37	$ 1,707.47	$ 8.60	155
May	$ 1,011.10	$ 371.85	$ 1,382.95	$ 3.33	$ 1,379.62	$ 1,382.95	$ 38.03	121
June	$ 987.60	$ 528.58	$ 1,516.18	$ 29.41	$ 1,486.77	$ 1,516.18	$ 8.60	125
Total	**$ 12,933.95**	**$ 3,837.20**	**$ 16,771.15**	**$ 130.48**	**$ 16,640.67**	**$ 16,771.15**	**$ 386.14**	**1573**

DNSWMA

GASQUET TRANSFER STATION - DEPOSITS

June-2016

Date	Cash	Checks	TOTAL Deposit	Over / Short	Sales	TOTAL Sales	Charges	Tickets
June 4, 2016	199.90	113.06	312.96	-7.00	319.96	312.96		30
June 11, 2016	214.86	198.65	413.51	8.60	404.91	413.51		31
June 18, 2016	391.51	118.13	509.64	0.61	509.03	509.64	8.60	39
June 25, 2016	181.33	98.74	280.07	27.20	252.87	280.07		25
			0.00			0.00		
			0.00			0.00		
TOTAL	$ 987.60	$ 528.58	**$ 1,516.18**	$ 29.41	$ 1,486.77	**$ 1,516.18**	**$ 8.60**	**125**

DNSWMA
KLAMATH TRANSFER STATION
2015 / 2016 Monthly Totals

Month	Cash	Checks	TOTAL Deposit	Over / Short	Sales	TOTAL Sales	Charges	Tickets
July	$ 3,681.03	$ 1,326.52	**$ 5,007.55**	$ 18.93	$ 4,988.62	**$ 5,007.55**	$ -	272
August	$ 4,676.47	$ 713.77	**$ 5,390.24**	$ 38.05	$ 5,352.19	**$ 5,390.24**	$ 164.66	325
September	$ 3,248.38	$ 649.53	**$ 3,897.91**	$ 8.60	$ 3,889.31	**$ 3,897.91**	$ 307.04	274
October	$ 2,994.39	$ 250.08	**$ 3,244.47**	$ 25.29	$ 3,219.18	**$ 3,244.47**	$ 120.00	242
November	$ 3,038.52	$ 333.05	**$ 3,371.57**	$ 24.19	$ 3,347.38	**$ 3,371.57**	$ 41.09	229
December	$ 2,589.85	$ 351.45	**$ 2,941.30**	$ 34.72	$ 2,906.58	**$ 2,941.30**	$ -	201
January	$ 3,134.87	$ 100.50	**$ 3,235.37**	$ 43.55	$ 3,191.82	**$ 3,235.37**	$ 49.68	246
February	$ 2,416.52	$ 443.77	**$ 2,860.29**	$ 9.87	$ 2,850.42	**$ 2,860.29**	$ 26.32	215
March	$ 2,419.18	$ 300.23	**$ 2,719.41**	$ 14.69	$ 2,704.72	**$ 2,719.41**	$ 368.48	206
April	$ 3,135.01	$ 374.54	**$ 3,509.55**	$ 15.97	$ 3,493.58	**$ 3,509.55**	$ 353.13	262
May	$ 3,256.18	$ 590.95	**$ 3,847.13**	$ 15.81	$ 3,831.32	**$ 3,847.13**	$ 49.69	276
June	$ 3,376.67	$ 715.79	**$ 4,092.46**	$ 33.82	$ 4,058.64	**$ 4,092.46**	$ 154.10	277
Total	**$ 37,967.07**	**$ 6,150.18**	**$ 44,117.25**	**$ 283.49**	**$ 43,833.76**	**$ 44,117.25**	**$ 1,634.19**	**3025**

DNSWMA

KLAMATH TRANSFER STATION - DEPOSITS

June-2016

Date	Cash	Checks	TOTAL Deposit	Over / Short	Sales	TOTAL Sales	Charges	Tickets
June 1, 2016	295.77	46.47	342.24	0.79	341.45	342.24	14.51	28
June 5, 2016	520.26	14.51	534.77	5.14	529.63	534.77		44
June 8, 2016	257.25	179.61	436.86	-0.14	437.00	436.86	52.37	28
June 12, 2016	517.74	82.45	600.19	8.78	591.41	600.19		38
June 15, 2016	484.47	8.60	493.07	0.05	493.02	493.07	35.17	26
June 19, 2016	320.25	127.05	447.30	9.36	437.94	447.30		32
June 22, 2016	179.90	55.59	235.49	-0.04	235.53	235.49	17.13	15
June 26, 2016	659.96	152.34	812.30	9.88	802.42	812.30		46
June 29, 2016	141.07	49.17	190.24		190.24	190.24	34.92	20
TOTAL	$ 3,376.67	$ 715.79	**$ 4,092.46**	$ 33.82	$ 4,058.64	**$ 4,092.46**	**$ 154.10**	**277**

DNSWMA
GRAND TOTALS
JULY 2016

	Amount to 422-421 91003	Amount to 422-421 91004	TOTAL AMOUNT
	66.53%	**33.47%**	
DNCTS Cash Total	32,606.75	16,403.84	*49,010.59*
DNCTS Charge Total	115,654.62	58,183.68	*173,838.30*
DNCTS Credit/Debit	23,850.60	11,998.79	*35,849.39*
DNCTS Totals	172,111.97	86,586.31	*258,698.28*
Klamath Cash Total		4,887.99	*4,887.99*
Klamath Charge Total		34.92	*34.92*
Klamath Totals		4,922.91	*4,922.91*
Gasquet Cash Total		1,606.72	*1,606.72*
Gasquet Charge Total		279.07	*279.07*
Gasquet Totals		1,885.79	*1,885.79*
Adjustments			
GRAND TOTALS	***172,111.97***	***93,395.01***	***265,506.98***

2.5

MONTHLY SPLIT SHEET
DNSWMA TRANSFER STATION
MONTH: JULY 2016

Date	Cash	Checks	Cash/Check Total	Visa	Master	Discover	AmExp	Credit Card Total	Charges	Grand Total	66.53% 91003	33.47% 91004	20286	Total	
1	$ 1,473.63	$ 129.17	$ 1,602.80	$ 1,053.23	$ 251.78			$ 1,305.01	$ 8,331.35	$ 11,239.16	$ 1,066.34	$ 536.46	$18.63	$ 1,621.43	
2	$ 1,488.56	$ 175.24	$ 1,663.80	$ 1,457.07	$ 76.76	$ 3.98		$ 1,537.81	$ 412.08	$ 3,613.69	$ 1,106.93	$ 556.87	$4.64	$ 1,668.44	
3	$ 1,315.55	$ 137.96	$ 1,453.51	$ 1,317.62	$ 148.33	$ 5.48		$ 1,471.43	$ 1,715.83	$ 4,640.77	$ 967.02	$ 486.49	$2.46	$ 1,455.97	
4	CLOSED		$ -					$ -		$ -	$ -	$ -		$ -	
5	$ 1,762.26	$ 133.59	$ 1,895.85	$ 1,042.69	$ 96.65	$ 6.47	$ 255.87	$ 1,401.68	$ 8,767.70	$ 12,065.23	$ 1,261.31	$ 634.54	($0.83)	$ 1,895.02	
6	$ 1,389.18	$ 100.93	$ 1,490.11	$ 1,172.22	$ 171.44	$ 4.98		$ 1,348.64	$ 10,227.20	$ 13,065.95	$ 991.37	$ 498.74	$0.90	$ 1,491.01	
7	$ 1,487.99	$ 147.84	$ 1,635.83	$ 1,024.62	$ 7.10	$ 26.89	$ 234.54	$ 1,293.15	$ 6,709.90	$ 9,638.88	$ 1,088.32	$ 547.51	$11.18	$ 1,647.01	
8	$ 1,343.00	$ 63.95	$ 1,406.95	$ 592.27	$ 28.43			$ 620.70	$ 6,358.77	$ 8,386.42	$ 936.04	$ 470.91	($13.46)	$ 1,393.49	
9	$ 1,156.95	$ 236.35	$ 1,393.30	$ 1,165.40	$ 108.00			$ 1,273.40	$ 6,256.16	$ 8,922.86	$ 926.96	$ 466.34	$0.19	$ 1,393.49	
10	$ 1,281.28	$ 154.94	$ 1,436.22	$ 799.13	$ 27.00		$ 14.22	$ 840.35	$ 225.48	$ 2,502.05	$ 955.52	$ 480.70		$ 1,436.22	
11	$ 1,014.59	$ 247.55	$ 1,262.14	$ 890.78	$ 22.74			$ 913.52	$ 9,359.29	$ 11,534.95	$ 839.70	$ 422.44	($11.06)	$ 1,251.08	
12	$ 1,624.27	$ 116.56	$ 1,740.83	$ 951.00	$ 27.89			$ 978.89	$ 9,120.52	$ 11,840.24	$ 1,158.17	$ 582.66	$0.13	$ 1,740.96	
13	$ 1,031.24	$ 73.65	$ 1,104.89	$ 1,011.44				$ 1,011.44	$ 5,725.41	$ 7,841.74	$ 735.08	$ 369.81	$6.78	$ 1,111.67	
14	$ 1,471.99	$ 211.05	$ 1,683.04	$ 761.52	$ 42.44			$ 803.96	$ 6,804.82	$ 9,291.82	$ 1,119.73	$ 563.31	$9.97	$ 1,693.01	
15	$ 1,234.63	$ 374.22	$ 1,608.85	$ 850.15	$ 111.54			$ 961.69	$ 6,512.26	$ 9,082.80	$ 1,070.37	$ 538.48	$1.03	$ 1,609.88	
16	$ 1,928.82	$ 298.54	$ 2,227.36	$ 1,083.01	$ 212.55			$ 1,295.56	$ 673.62	$ 4,196.54	$ 1,481.86	$ 745.50	$0.95	$ 2,228.31	oil paid
17	$ 1,596.72	$ 132.20	$ 1,728.92	$ 726.69	$ 179.11			$ 905.80	$ 948.54	$ 3,583.26	$ 1,150.25	$ 578.67		$ 1,728.92	out $4.00
18	$ 1,390.46	$ 136.77	$ 1,527.23	$ 977.29	$ 92.39	$ 12.79		$ 1,082.47	$ 9,418.70	$ 12,028.40	$ 1,016.07	$ 511.16	$0.29	$ 1,527.52	
19	$ 1,073.03	$ 201.72	$ 1,274.75	$ 1,025.58	$ 99.49			$ 1,125.07	$ 12,318.67	$ 14,718.49	$ 848.09	$ 426.66	$3.58	$ 1,278.33	
20	$ 1,199.55	$ 126.15	$ 1,325.70	$ 864.76	$ 31.27	$ 17.06		$ 913.09	$ 5,706.53	$ 7,945.32	$ 881.99	$ 443.71	($0.10)	$ 1,325.60	
21	$ 1,247.89	$ 335.92	$ 1,583.81	$ 838.25	$ 18.48	$ 83.17		$ 939.90	$ 8,749.76	$ 11,273.47	$ 1,053.71	$ 530.10	$0.22	$ 1,584.03	
22	$ 1,257.57	$ 135.91	$ 1,393.48	$ 985.07	$ 113.72	$ 49.75		$ 1,148.54	$ 6,970.53	$ 9,512.55	$ 927.08	$ 466.40	$0.11	$ 1,393.59	
23	$ 1,728.64	$ 127.94	$ 1,856.58	$ 967.13	$ 52.60	$ 7.11		$ 1,026.84	$ 698.24	$ 3,581.66	$ 1,235.18	$ 621.40	($0.21)	$ 1,856.37	
24	$ 2,147.15	$ 168.36	$ 2,315.51	$ 810.41	$ 59.42			$ 869.83	$ 1,234.56	$ 4,419.90	$ 1,540.51	$ 775.00		$ 2,315.51	
25	$ 1,247.27	$ 205.42	$ 1,452.69	$ 717.81				$ 717.81	$ 8,671.86	$ 10,842.36	$ 966.47	$ 486.22	$0.11	$ 1,452.80	
26	$ 1,698.20	$ 76.06	$ 1,774.26	$ 473.21	$ 58.29	$ 11.37		$ 542.87	$ 9,906.79	$ 12,223.92	$ 1,180.42	$ 593.84	$1.61	$ 1,775.87	
27	$ 1,709.32	$ 96.64	$ 1,805.96	$ 799.84	$ 39.80	$ 25.90		$ 865.54	$ 5,262.69	$ 7,934.19	$ 1,201.51	$ 604.45	($14.40)	$ 1,791.56	
28	$ 1,768.83	$ 265.27	$ 2,034.10	$ 730.52	$ 13.30		$2,444.43	$ 3,188.25	$ 8,361.72	$ 13,584.07	$ 1,353.29	$ 680.81	($0.48)	$ 2,033.62	
29	$ 1,004.02	$ 322.47	$ 1,326.49	$ 563.93	$ 8.53		$ 305.12	$ 877.58	$ 6,509.96	$ 8,714.03	$ 882.51	$ 443.98	$0.62	$ 1,327.11	
30	$ 1,437.57	$ 346.82	$ 1,784.39	$ 2,234.50	$ 169.16		$ 963.18	$ 3,366.84	$ 711.87	$ 5,863.10	$ 1,187.15	$ 597.24	$1.99	$ 1,786.38	
31	$ 2,045.70	$ 175.54	$ 2,221.24	$ 1,190.46	$ 31.27			$ 1,221.73	$ 1,167.49	$ 4,610.46	$ 1,477.79	$ 743.45		$ 2,221.24	
								$ -							
TOTALS	$43,555.86	$5,454.73	$ 49,010.59	$29,077.60	$2,299.48	$ 254.95	$4,217.36	$35,849.39	$173,838.30	$258,698.28	$32,606.75	$16,403.84	$ 24.85	$49,035.44	

DAILY TICKET REPORT
DNSWMA TRANSFER STATION
MONTH: July 2016

Date	BEGIN	END	VOIDED TICKETS	TICKET COUNT
1	886984	887211		**228**
2	887212	887434	2	**221**
3	887435	887623		**189**
4	CLOSED			
5	887624	887869		**246**
6	887870	888106	1	**236**
7	888107	888317	1	**210**
8	888318	888458	1	**140**
9	888459	888631		**173**
10	888632	888782		**151**
11	888783	888976		**194**
12	888977	889174		**198**
13	889175	889366		**192**
14	889367	889572		**206**
15	889573	889777		**205**
16	889778	890004		**227**
17	890005	890173		**169**
18	890174	890378		**205**
19	890379	890575		**197**
20	890576	890743		**168**
21	890744	890914		**171**
22	890915	891099		**185**
23	891100	891311	1	**211**
24	891312	891492		**181**
25	891493	891668		**176**
26	891669	891868		**200**
27	891869	892058		**190**
28	892059	892279	1	**220**
29	892280	892465		**186**
30	892466	892682		**217**
31	892683	892897		**215**
TOTAL			**7**	**5907**

DNSWMA

KLAMATH TRANSFER STATION - CASH

July 2016

Date	Amount to 422-421-91004	TOTAL CASH AMOUNT
July 1, 2016	64.00	$ 64.00
July 3, 2016	657.31	$ 657.31
July 6, 2016	507.85	$ 507.85
July 8, 2016	58.37	$ 58.37
July 10, 2016	906.64	$ 906.64
July 13, 2016	333.70	$ 333.70
July 15, 2016	130.82	$ 130.82
July 17, 2016	496.39	$ 496.39
July 20, 2016	184.48	$ 184.48
July 22, 2016	78.43	$ 78.43
July 24, 2016	520.21	$ 520.21
July 27, 2016	266.43	$ 266.43
July 29, 2016	52.12	$ 52.12
July 31, 2016	631.24	$ 631.24
		$ 0.00
TOTALS	*4,887.99*	***4,887.99***

DNSWMA		
GASQUET TRANSFER STATION - CASH		
Jul-16		
Date	**Amount to 422-421-91004**	**TOTAL CASH AMOUNT**
July 2, 2016	250.97	**250.97**
July 7, 2016	141.59	**141.59**
July 9, 2016	162.46	**162.46**
July 14, 2016	150.41	**150.41**
July 16, 2016	210.78	**210.78**
July 21, 2016	116.60	**116.60**
July 23, 2016	230.48	**230.48**
July 28, 2016	71.13	**71.13**
July 30, 2016	272.30	**272.30**
		0.00
TOTALS	*1,606.72*	***1,606.72***

DNSWMA

GASQUET TRANSFER STATION - DEPOSITS

July-2016

Date	Cash	Checks	TOTAL Deposit	Over / Short	Sales	TOTAL Sales	Charges	Tickets
July 2, 2016	146.47	104.50	250.97	-3.04	254.01	250.97	17.46	22
July 7, 2016	132.99	8.60	141.59	0.69	140.90	141.59	37.14	19
July 9, 2016	139.36	23.10	162.46	-5.05	167.51	162.46		17
July 14, 2016	103.61	46.80	150.41		150.41	150.41	35.18	14
July 16, 2016	155.83	54.95	210.78	0.10	210.68	210.78		22
July 21, 2016	66.46	50.14	116.60	1.75	114.85	116.60	29.01	15
July 23, 2016	172.46	58.02	230.48	-0.05	230.53	230.48		22
July 28, 2016	62.53	8.60	71.13		71.13	71.13		7
July 30, 2016	224.19	48.11	272.30	0.24	272.06	272.30	160.28	29
			0.00			0.00		
TOTAL	$ 1,203.90	$ 402.82	**$ 1,606.72**	$ (5.36)	$ 1,612.08	**$ 1,606.72**	**$ 279.07**	**167**

	TOTAL SALES	
Date	**Thursday**	**Saturday**
July 2, 2016		250.97
July 7, 2016	141.59	
July 9, 2016		162.46
July 14, 2016	150.41	
July 16, 2016		210.78
July 21, 2016	116.60	
July 23, 2016		230.48
July 28, 2016	71.13	
July 30, 2016		272.30
TOTALS	***$479.73***	***$1,126.99***
DAILY AVERAGE	$119.93	$225.40

DNSWMA
KLAMATH TRANSFER STATION - DEPOSITS
July-2016

Date	Cash	Checks	TOTAL Deposit	Over / Short	Sales	TOTAL Sales	Charges	Tickets
July 1, 2016	49.49	14.51	64.00	0.07	63.93	64.00		4
July 3, 2016	499.85	157.46	657.31	-0.02	657.33	657.31		31
July 6, 2016	464.33	43.52	507.85	6.73	501.12	507.85		23
July 8, 2016	58.37		58.37	0.35	58.02	58.37		4
July 10, 2016	654.86	251.78	906.64	2.74	903.90	906.64		52
July 13, 2016	325.10	8.60	333.70	0.04	333.66	333.70	11.55	24
July 15, 2016	130.82		130.82		130.82	130.82		8
July 17, 2016	476.24	20.15	496.39	0.05	496.34	496.39		34
July 20, 2016	155.47	29.01	184.48	-0.10	184.58	184.48		17
July 22, 2016	78.43		78.43		78.43	78.43		5
July 24, 2016	371.99	148.22	520.21	0.61	519.60	520.21		35
July 27, 2016	225.86	40.57	266.43	-0.57	267.00	266.43	23.37	20
July 29, 2016	52.12		52.12		52.12	52.12		4
July 31, 2016	567.83	63.41	631.24	2.50	628.74	631.24		36
			0.00			0.00		
TOTAL	$ 4,110.76	$ 777.23	**$ 4,887.99**	$ 12.40	$ 4,875.59	**$ 4,887.99**	**$ 34.92**	**297**

	TOTAL SALES		
Date	Wednesday	Friday	Sunday
July 1, 2016		64.00	
July 3, 2016			657.31
July 6, 2016	507.85		
July 8, 2016		58.37	
July 10, 2016			906.64
July 13, 2016	333.70		
July 15, 2016		130.82	
July 17, 2016			496.39
July 20, 2016	184.48		
July 22, 2016		78.43	
July 24, 2016			520.21
July 27, 2016	266.43		
July 29, 2016		52.12	
July 31, 2016			631.24
TOTALS	***$1,292.46***	***$383.74***	***$3,211.79***
DAILY AVERAGE	$323.12	$76.75	$642.36

AUTHORITY REVENUE REPORT **June 2016**

Source	2014/2015		2015/2016		
Authority	Actual Annual			Budget/Month	
Service Fees	$ 1,002,778.17			$ 83,083.33	$ 997,000.00
	Actual/Month	Comparison FYE15 & FYE16		Actual/Month	Over Budget
July	$ 96,004.21	$ (1,389.79)	July	**$ 94,614.42**	$ 11,531.09
August	$ 89,437.87	$ 2,718.16	August	**$ 92,156.03**	$ 9,072.70
September	$ 84,704.53	$ 7,278.67	September	**$ 91,983.20**	$ 8,899.87
October	$ 83,098.23	$ 7,306.85	October	**$ 90,405.08**	$ 7,321.75
November	$ 72,572.43	$ 2,069.22	November	**$ 74,641.65**	$ (8,441.68)
December	$ 76,859.33	$ (3,776.33)	December	**$ 73,083.00**	$ (10,000.33)
January	$ 84,970.65	$ (9,140.42)	January	**$ 75,830.23**	$ (7,253.10)
February	$ 77,883.08	$ 5,195.45	February	**$ 83,078.53**	$ (4.80)
March	$ 82,827.13	$ (89.63)	March	**$ 82,737.50**	$ (345.83)
April	$ 79,373.56	$ 6,996.66	April	**$ 86,370.22**	$ 3,286.89
May	$ 85,383.19	$ 5,570.94	May	**$ 90,954.13**	$ 7,870.80
June	$ 89,663.96	$ 5,381.04	June	**$ 95,045.00**	$ 11,961.67
Total	$ 1,002,778.17	$ 28,120.82	Total	**$ 1,030,898.99**	$ 33,898.99

Over last year at this point

3.29%
Ahead of budget

2.6

AUTHORITY REVENUE REPORT **June 2016**

Source **2014/2015**

Franchise Fee

Actual Annual

	Actual/Month	Comparison FY 14/15
July	$ 19,120.00	$ 380.00
August	$ 20,447.00	$ 3,679.00
September	$ 20,575.00	$ 4,713.00
October	$ 21,152.00	$ 1,466.00
November	$ 19,499.00	$ 1,888.00
December	$ 19,400.00	$ 1,403.00
January	$ 19,301.00	$ 1,479.00
February	$ 20,531.00	$ 296.00
March	$ 19,833.00	$ 1,605.00
April	$ 20,819.00	$ 980.00
May	$ 19,868.00	$ 3,474.00
June	$ 23,504.00	$ 896.00
Total	$ 244,049.00	$ 22,259.00

Over last year at this point

2015/2016

Budget/Month $ 21,334.17 Budget/Year $ 256,010.00

	Actual/Month	Over/Under Budget
July	**$ 19,500.00**	$ (1,834.17)
August	**$ 24,126.00**	$ 2,791.83
September	**$ 25,288.00**	$ 3,953.83
October	**$ 22,618.00**	$ 1,283.83
November	**$ 21,387.00**	$ 52.83
December	**$ 20,803.00**	$ (531.17)
January	**$ 20,780.00**	$ (554.17)
February	**$ 20,827.00**	$ (507.17)
March	**$ 21,438.00**	$ 103.83
April	**$ 21,799.00**	$ 464.83
May	**$ 23,342.00**	$ 2,007.83
June	**$ 24,400.00**	$ 3,065.83
Total	**$ 266,308.00**	$ 10,298.00

3.87%

Ahead of budget

AUTHORITY REVENUE REPORT **July 2016**

Source	2015/2016		2016/2017		
Authority	Actual Annual			Budget/Month	
Service Fees	$ 1,030,898.99			$ 83,947.67	$ 1,007,372.00

	Actual/Month	Comparison FY15/16		Actual/Month	Over Budget
July	$ 94,614.42	$ (1,219.41)	July	**$ 93,395.01**	$ 9,447.34
August	$ 92,156.03	$ -	August		$ -
September	$ 91,983.20	$ -	September		$ -
October	$ 90,405.08	$ -	October		$ -
November	$ 74,641.65	$ -	November		$ -
December	$ 73,083.00	$ -	December		$ -
January	$ 75,830.23	$ -	January		$ -
February	$ 83,078.53	$ -	February		$ -
March	$ 82,737.50	$ -	March		$ -
April	$ 86,370.22	$ -	April		$ -
May	$ 90,954.13	$ -	May		$ -
June	$ 95,045.00	$ -	June		$ -
Total	$ 1,030,898.99	$ (1,219.41)	Total	**$ 93,395.01**	$ 9,447.34

Over last year at this point

10.12%
Ahead of budget

2.7

AUTHORITY REVENUE REPORT **July 2016**

Source **2015/2016**

Franchise Fee

Actual Annual

	Actual/Month	Comparison FY 15/16
July	$ 19,500.00	$ 5,094.00
August	$ 24,126.00	$ -
September	$ 25,288.00	$ -
October	$ 22,618.00	$ -
November	$ 21,387.00	$ -
December	$ 20,803.00	$ -
January	$ 20,780.00	$ -
February	$ 20,827.00	$ -
March	$ 21,438.00	$ -
April	$ 21,799.00	$ -
May	$ 23,342.00	$ -
June	$ 24,400.00	$ -
Total	$ 266,308.00	$ 5,094.00

Over last year at this point

2016/2017

	Budget/Month	Budget/Year
	$ 22,796.67	$ 273,560.00

	Actual/Month	Over/Under Budget
July	**$ 24,594.00**	$ 1,797.33
August		$ -
September		$ -
October		$ -
November		$ -
December		$ -
January		$ -
February		$ -
March		$ -
April		$ -
May		$ -
June		$ -
Total	**$ 24,594.00**	$ 1,797.33

7.31%

Ahead of budget

Del Norte Solid Waste Management Authority

1700 State Street, Crescent City, CA 95531
Phone (707) 465-1100 Fax (707) 465-1300
www.recycledelnorte.ca.gov

The Authority's mission is the management of Del Norte County solid waste and recyclable material in an environmentally sound, cost effective, efficient and safe manner while ensuring 100% regulatory compliance with law.

26 July 2016

Attention: Ms. Gina Morrison
Regional Water Quality Control Board, North Coast Region
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

SUBJECT: Revised First-Half 2016 Water-Quality Monitoring Report and Evaluation of Threat and Complexity Rating for Crescent City Landfill

Dear Ms. Morrison:

In response to your email of July 6, 2016 rejecting the First-Half 2016 Water-Quality Monitoring Report and Evaluation of Threat and Complexity Rating for Crescent City Landfill we are enclosing a revised report addressing the items contained in your email to Kayleen Warner.

Regarding the color tables and figures, in most, if not all, cases, the wells are denoted both by color and symbol so that they can be discerned when the figures are in either black & white or color. While not as easy to read as color graphs, in the black & white versions the data can be discerned. In the current report, and in the future, all graphs and figures are, and will be, in color. Considering that the current set of color graphs shows historical data also, we hope that you concur that the additional staff effort to re-scan each of the many older color graphs is not justified or required.

Sincerely,

Tedd Ward

Tedd Ward, M.S. – Director
Del Norte Solid Waste Management Authority

Attachment: Revised Report

LAWRENCE & ASSOCIATES
ENGINEERING GEOLOGY
CIVIL ENGINEERING
GROUND-WATER HYDROLOGY

015063.00

FIRST-HALF 2016
WATER-QUALITY MONITORING REPORT
AND EVALUATION OF
THREAT AND COMPLEXITY RATING
FOR
CRESCENT CITY LANDFILL

MAY 5, 2016
REVISED JULY 25, 2016

PROFESSIONAL GEOLOGIST
BONNIE E. LAMPLEY
No. HG626
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

PREPARED FOR:

DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY
1700 STATE STREET
CRESCENT CITY, CA 95531

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A. Field Data & Laboratory sheets
B. Historical data tables (on CD)

INTRODUCTION

ROUTINE MONITORING

This document presents the first-half 2016 water-quality monitoring report for the Crescent City Landfill (Landfill), Del Norte County, California (**Figure 1**). Lawrence & Associates (L&A) prepared this report at the request of the Del Norte Solid Waste Management Authority (DNSWMA), a joint powers authority of the County of Del Norte and the only incorporated city, Crescent City. The Authority has administrative responsibility for the Crescent City Landfill, including environmental monitoring, reporting, and compliance, though the landfill and landfill property are owned by the County of Del Norte.

The Landfill, which was closed in March 2005, is monitored under Waste Discharge Requirements (WDR) Order No. 97-90, issued by the North Coast Regional Water Quality Control Board (NCRWQCB) on September 25, 1997.

In anticipation of updating the WDR, the DNSWMA proposed updates to the Monitoring & Reporting Program (MRP). To that end, L&A prepared a report (MRP Update Report) summarizing the landfill history and operations, describing the hydrogeology of the site, and interpreting the historical water-quality data, and proposing changes to the MRP.[1]

ADDITIONAL MONITORING RELATED TO THREAT/COMPLEXITY RATING

In an effort to reduce the NCRWQCB Threat/Complexity (T/C) Rating for the Landfill (currently 1A, the highest rating which reflects a high threat to water quality), NCRWQCB staff agreed that the T/C Rating may be temporarily reduced if the DNSWMA samples two of the nearest residential wells to the Landfill. Therefore, in addition to sampling the routine monitoring points, two off-site domestic wells also were sampled (**Figure 2**).[2]

NCRWQCB staff stated that the T/C rate would be lowered once results show these wells are not impacted by the Landfill and the information is submitted in a report signed and stamped by an appropriate professional (email from Ms. Gina Morrison, NCRWQCB to Mr. Tedd Ward, DNSWMA, October 28, 2015).

NCRWQCB staff have suggested that these off-site wells should continue to be sampled until the DNSWMA installs additional downgradient well(s), presumably between the landfill and the residences. Then, the new monitoring well(s) would be substituted for the residential wells. Based on the analysis herein and the MRP Update Report, it is neither clear whether an additional downgradient well is necessary at this time nor where one should be located. The location of new downgradient wells may depend, in part, on the results of the residential well sampling, and

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[1] L&A, January 13, 2016, *Proposed Updates to Monitoring & Reporting Program for Crescent City Landfill.*

[2] L&A, February 26, 2016, *Protocol for Sampling Domestic Wells Near Crescent City Landfill.*

on the continued monitoring of the E-4 well pair. In the MRP Update Report, we recommended evaluating the need and/or location for a new downgradient well in six months, after one more sampling event for the E-4 pair and sampling of the residential wells. The E-4 well pair was not sampled in first-quarter 2016, therefore the need and/or location for a new downgradient well should be re-evaluated after second-half 2016 sampling.

SUMMARY

GROUNDWATER GRADIENT AND MOVEMENT

Figures 2 and **3** shows groundwater elevation contour maps for January 26, 2016, for the Dune (shallow) and Battery (deep) aquifers, respectively. The direction of the groundwater gradient is similar in both aquifers, ranging from east to southeast at magnitudes ranging from 0.006 to 0.025 feet/foot. This is similar to previous periods.

GENERAL WATER QUALITY

First-quarter 2016 water-quality monitoring was performed by DNSWMA per WDR Order No. 97-90. In addition, two neighboring residential wells were sampled on parcels APN 110-140-16 and -24, per the Sampling and Analysis Plan for Residential Wells dated February 26, 2016, and approved by NCRWQCB staff.

Volatile organic compounds (VOC) were not detected in the residential wells, nor in any landfill wells except for SM-6. In the current sampling event, SM-6 contained 0.90 µg/L of toluene and 24 µg/L of benzene. The detections of VOC in SM-6 since 2012 have been attributed to vandalism (this well has since been fitted with a locking cover). This is supported by the decreasing trend for total dissolved solids (TDS) since closure; if landfill leachate were imparting VOC, TDS would not be expected to be decreasing. TDS is used here as an indicator of the general water quality and level of mineralization.

Wells downgradient of the Landfill and between the Landfill and the residential area show decreasing trends for TDS since Landfill closure. The E-3 pair, W-6E, W-6W, and SM-6 all show statistically significant decreasing trends in TDS since closure. The E-1 pair shows decreasing trends in TDS, although not statistically significant. Most of these wells have not shown VOC detections for at least the last six years. VOC have never been detected in W-6E; VOC have not been detected in W-6W since 2001.

The only increasing trend in TDS is in W-2, and it is unusual, in that there is not a correlative increase in TDS in any of the downgradient wells. If the increase in TDS in W-2 was attributable to significant leachate migrating to groundwater over such a long period (almost 30 years), it would be expected that the downgradient wells would be showing increasing trends. All downgradient wells, however, are showing decreasing trends. Landfill-gas migration also does not appear to be causing this increase, as no other wells show a similar trend. Therefore, we recommend evaluating the casing with a downhole camera survey, to evaluate whether the casing is damaged. If the casing is damaged, the well should be properly abandoned.

Graphical analyses of water quality, through Piper diagrams and Stiff patterns, illustrate that most of the Landfill wells show some degree of Landfill influence in their mineral quality, although most have shown improvements in water quality since closure.

Concentration of all tested parameters in the residential wells met Federal and State drinking water standards. The groundwater in the two residential wells is of good quality.

THREAT AND COMPLEXITY RATING

The Landfill is classified with a 1A Threat/Complexity rating. This is the highest rating, and, based on the definitions, applies as follows:[3]

> Category "1": *Those discharges of waste that could cause the long-term loss of a designated beneficial use of the receiving water. Examples of long-term loss of a beneficial use include the loss of drinking water supply, the closure of an area used for water contact recreation, or the posting of an area used for spawning or growth of aquatic resources, including shellfish and migratory fish.*
>
> Category "A": *Any discharge of toxic wastes; any small volume discharge containing toxic waste; any facility having numerous discharge points and groundwater monitoring; or any Class 1 waste management unit.*

The other categories are defined as follows:

> Category "2": *Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.*
>
> Category "3": *Those discharges of waste that could degrade water quality without violating water quality objectives, or could cause a minor impairment of designated beneficial uses as compared with Category 1 and Category 2.*
>
> ---
>
> Category "B": *Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units.*
>
> Category "C": *Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal.*

[3] http://www.waterboards.ca.gov/resources/fees/docs/fy1415_wdr_fees.pdf

Based on the current monitoring results which show no VOC detections attributable to the Landfill, the statistically significant decreasing trends in the downgradient wells between the Landfill and the residential area, and the good water quality in the residential wells, it appears that the Threat/Complexity rating of 1A is no longer warranted.

The monitoring data show that, if Landfill conditions remain as they are now, there will not be a long-term loss of beneficial uses of groundwater downgradient of the Landfill. The Landfill facility no longer has multiple discharge points (the previously used ponds were dewatered and backfilled prior to 1996) and there are no indications of toxic substances migrating off the Landfill property. Therefore, the 1A rating is no longer warranted.

Monitoring data do show that the Landfill has affected water quality in its immediate vicinity, although those effects are waning. If Landfill conditions remain as they are now (*e.g.*, closure cap and associated facilities are maintained), it is unlikely that off-site beneficial uses of groundwater or surface water will be affected in the long-term. It is possible, however, that short-term effects could occur, temporarily affecting beneficial uses. Therefore, because the Landfill is classified as a Class 3 facility, with the potential to cause short-term effects to the beneficial uses of groundwater or surface water, a Threat/Complexity rating of 2B would be appropriate.

SITE DESCRIPTION

The Landfill is located two miles north of Crescent City, in Del Norte County, on a 166-acre property (**Figure 1**). The property encompasses parcels APN 110-020-08, APN 1120-020-43, and a portion of APN 110-020-69. The property is owned by Del Norte County and zoned as a Public Facility. Current land uses within one mile of the site are recreational, wildlife habitat, agricultural, residential, and industrial. The Landfill mound comprises approximately 23 acres of the 167-acre site.

The landfill property is surrounded on three sides by land owned by the California Department of Parks and Recreation; their holdings include approximately 5,000 acres extending from Old Mill Road to the ocean, less than two miles to the west. There is a residential area consisting of sixteen properties located approximately one quarter to one half mile north-northeast of the Landfill mound (main body of waste). Eight property owners adjacent to and in the vicinity of the Landfill were contacted by DNSWMA staff. Three responded and were willing to have their wells sampled. Two of those were chosen (APN 110-140-16 and -24) based on their location relative to the landfill and the direction of the groundwater gradient (**Figures 2** and **3**).

In 1996, the approximate southern half of the landfill was capped with a 60-mil coextruded geomembrane. In October 2005, the second phase of closure included capping the remaining area with a linear low-density polyethylene (LLDPE) geomembrane. Since 2005, no waste has been disposed at the Landfill.

Since 1997, groundwater-monitoring has been conducted using 17 groundwater monitoring wells, one leachate well, and three surface-water points. Two additional wells, E-4 Shallow and E-4 Deep, have been sampled but are not under MRP 97-90, as they were installed in 2014. This report includes analysis and recommendations regarding future sampling of the E-4 wells. Monitoring is conducted by DNSWMA and County staff.

Beginning in at least 1987, evidence of Landfill influence on groundwater and surface-water quality was noted. Impacts consist of periodic detections of organic compounds and elevated mineral constituents. In general, however, water quality has improved since the completion of landfill capping. This was discussed in detail in the MRP Update Report.

METHODS

DNSWMA staff conducted the groundwater and surface-water sampling per the protocol recommended in a Technical Memorandum prepared in 1996 by Winzler & Kelly, and approved by NCRWQCB staff. Before sampling, the depth to water in each groundwater well was measured with an electronic well sounder.

Field parameters were not able to be measured because of instrument failure. The instruments have since been repaired and the batteries replaced. To preclude future problems in the field, the meter will be tested two weeks prior to the monitoring date so that if any issues arise there will be time to address them. Per the Sampling and Analysis Plan, the meter will continue to be calibrated the morning of the actual testing.

Samples were hand carried, on ice and accompanied by appropriate chain-of-custody documentation, to North Coast Laboratories, Ltd., in Arcata, California.

HYDROGEOLOGICAL SETTING

The following discussions of the hydrogeologic setting and water quality were taken from the more detailed description in the MRP Update Report. Please refer to that report for additional information, as indicated.

STRATIGRAPHY

The Landfill site is underlain by the following geologic units, from ground surface downwards:

- Dune deposits of well-sorted, poorly consolidated, fine-grained sand. The Dune deposit is of varying thickness, depending on the ground-surface topography. In the higher elevation portions of the site, the Dune deposits can be as much as 40 feet thick (*e.g.*, as in the boring for the E-4 wells). In other areas, the Dune deposits may be less than 10 feet thick (*e.g.*, as in the boring for well W-2). Hydraulic conductivity of the Dune deposits ranges from 1.1×10^{-3} to 5.8×10^{-3} cm/sec.

- Underlying the Dune deposits is a unit characterized as the Marsh deposit. The Marsh deposit consists of interbedded peat and silty to clayey sand. It can be present merely as a zone of organic material or greenish-gray clayey zone, or range up to 10 feet thick. It appears to thicken to the northeast (*e.g.*, as in the boring for the E-4 wells).
- Underlying the Marsh deposit is the Battery Formation, a littoral sand deposit. The Battery Formation ranges in thickness from about five to 30 feet, although, in general, it is thinner overall than the Dune deposits. Hydraulic conductivity of the Battery Formation ranges from 4.1×10^{-4} to 6.1×10^{-5} cm/sec.
- Underlying the Battery Formation is bedrock of the St. George Formation. The St. George Formation consists of highly consolidated siltstone and sandstone, and is considered essentially non-water bearing.

The Dune, Marsh, and Battery deposits range in age from Pleistocene to Holocene (approximately 2.5 million years to present). The St. George Formation is late Miocene in age (approximately 5 to 6 million years).

SURFACE-WATER OCCURRENCE

Because of the relatively high permeability of the Dune deposits, precipitation and surface drainage can rapidly percolate downward into the deposits. Similarly, there can be a relatively strong connection between groundwater and surface water, especially where groundwater levels are near ground surface. Historically, groundwater mounds were noted below surface impoundments.

GROUNDWATER OCCURRENCE

Groundwater occurs principally in the Dune and Battery deposits; for practical purposes, the St. George Formation is non-water bearing. Although the Marsh deposit is saturated in some locations, it is not considered an aquifer; rather, it acts as an aquitard between the Dune and Battery deposits.

Depth to groundwater at the Landfill site generally ranges from near ground surface (less than five feet) to approximately 40 feet below ground surface (bgs).

At all locations, the elevation of the piezometric surface is higher in the Dune deposit relative to that of the Battery Formation. The difference ranges from about one foot (in the W-6E/W pair) to almost eight feet (in the W-1E/W pair). Thus, the relative elevations of the piezometric surfaces show that there is a net downward gradient from the Dune deposit to the Battery Formation. This is the case even though the Battery Formation aquifer is semiconfined by the Marsh deposit.

Figures 2 and **3** shows groundwater elevation contour maps for January 26, 2016, for the Dune (shallow) and Battery (deep) aquifers, respectively. The direction of the groundwater gradient is

similar in both aquifers, ranging from east to southeast at magnitudes ranging from 0.006 to 0.025 feet/foot. This is similar to previous periods.

Both aquifers show a steepening of the gradient generally in the middle part of the site, beneath the central part of the Landfill mound. In this area, the gradient steepens from approximately 0.006 feet/foot to 0.020 feet/foot, with the direction remaining generally unchanged.

The groundwater gradient in the Battery Formation aquifer shows another distinct steepening and change of direction in the area bounded by the W-6W Deep, E-4 Deep, and E-3 Deep (between the Landfill mound and the nearest residential wells). In this area, the gradient steepens to 0.025 feet/foot, and has a slight change of direction, becoming more easterly.

Although the various wells' screened intervals are not exactly the same, the differences in screened-interval length or elevation is not sufficient to cause such distinct changes in gradient. Possible explanations for the gradient changes are stratigraphic changes and changes in elevation of the top of the St. George Formation.

To the northeast of the Landfill, the Battery Formation (deep aquifer) essentially thins to nothing, with the lower permeability Marsh deposit lying directly on the St. George Formation. Additionally, the top of bedrock is higher in elevation to the northeast, leading to a thinning of the aquifer. The thinner aquifer and decreasing hydraulic conductivity, an increase in the groundwater gradient is to be expected.

WATER QUALITY

Attachment A contains laboratory sheets; **Attachment B** contains data tables in electronic format. **Table 1** (following text) contains a summary of the first-half results. **Figures 4** through **6** show graphs of total dissolved solids (TDS) vs. time for wells currently monitored, for the historical record (historical data tables are submitted with the semiannual reports and will not be reproduced herein). **Figures 7** through **9** show Stiff patterns of water quality, to illustrate differences in current water quality between wells and changes in water quality over time for downgradient monitoring points on the eastern side of the landfill.

As early as 1987, groundwater quality impacts from site operations were noted. The impacts were attributed to different site operations, including the now-closed sludge and whey ponds, and the landfill itself. Closure of the various ponds and capping the landfill, however, has improved groundwater quality in almost all locations.

SOUTHEAST TO SOUTHWEST OF LANDFILL MOUND

Figure 4 shows TDS time-series graphs for the E-1 pair, E-2 Deep, SM-6, W-2 Deep, W-3S, and 8-Shallow, located on the generally southeast to southwest sides (downgradient and crossgradient) of the Landfill.

In the E-1 pair, TDS increased in the period 1996 through 2009, but has decreased since 2009. The overall increase between 1996 and the present is statistically significant at the 95% level

(statistical sheets are in **Attachment A** in the MRP Update Report). Since closure (2006 to present), TDS in both E-1 wells is decreasing, although the decrease is not statistically significant and E-1 Deep showed a higher TDS in the current sample. Current TDS value in the shallow aquifer at E-1 is approximately 280 mg/L.

Moving to the southeast and immediately adjacent to the landfill, shallow well SM-6 shows a statistically significant decreasing trend for TDS for 1995 through 2015. Current TDS in SM-6 is less than 100 mg/L. Well E-2 Deep shows no significant trend for its period of record (2007 to present). Current TDS in E-2 Deep is approximately 520 mg/L.

Well SM-6 had detections of relatively high concentrations of toluene between September 2012 and September 2013 (see below); toluene was nondetected in November 2014 and March 2015, but detected again in August 2015 and January 2016. The DNSWMA installed a locking cover on this well in October 2013. In the current sampling event, SM-6 contained 0.90 µg/L of toluene and 24 µg/L of benzene.

Date	SM-6, Toluene (µg/L)	Date	SM-6, Toluene (µg/L)
6-Sep-12	610	25-Feb-14	1.3
24-Jan-13	1.6	24-Nov-14	<0.5
20-Aug-13	2600	19-Mar-15	<0.5
17-Sep-13	270	18-Aug-15	91
		27-Jan-16	0.90

The patterns of detections (sudden onsets, sudden decreases) is more characteristic of vandalism or the presence of VOC-containing materials in the well, not Landfill influence. To evaluate this, L&A will conduct a video survey of SM-6 and redevelop the well before the next sampling event.

At the immediate southwestern corner of the Landfill, well W-2 Deep is the only site well that currently shows an increasing trend since closure. This location very close to the landfill, and the groundwater level here likely is very close to the bottom of waste (see **Figures 4** and **6**). The TDS in W-2 Deep shows a significant increasing trend since at least 1990, with no apparent changes since closure. Current TDS in W-2 deep is approaching 900 mg/L. VOC have only been detected in this well once, however, in August 2009 (hexachloroethane at 110 µg/L). This detection may reflect non-landfill influence because hexachloroethane also was detected at exactly 110 µg/L in five of the site wells on the same date; it seems unlikely that contamination derived from the landfill would show the same concentration in five wells on the same date.

The two shallow wells in the area southwest of the Landfill mound, W-3 Shallow and W-8 Shallow, are upgradient and crossgradient of the Landfill mound, respectively, although W-3 Shallow is downgradient of former waste ponds. For the period of record (1988 to present), W-3 Shallow shows a significant decreasing trend and W-8 Shallow shows no significant trend. This is consistent with W-3 Shallow being downgradient of the former ponds. After their closure, it would be expected that downgradient groundwater quality would improve. W-8 Shallow is crossgradient of former and current Landfill features, so it would be expected that groundwater

quality would remain stable at that location. Current TDS in these wells is approximately 150 mg/L. VOC have been nondetected in W-3 Shallow for the last five years; VOC have always been nondetected in W-8 Shallow.

NORTHEAST TO NORTH OF LANDFILL MOUND (TOWARDS RESIDENTIAL AREA)

Figure 5 shows the time-series graphs for wells northeast to north of the Landfill mound, directly between the Landfill and the closest neighboring wells which are to the northeast of the Landfill property. Monitoring wells between the Landfill and the neighbors are the E-3 and E-4 pairs. The E-3 pair has been monitored since 1996; the E-4 pair was installed in early 2014, and thus has only a small data set.

Looking at TDS from the period-of-record shows that values were higher in both E-3 Shallow and Deep before closure. Before closure, TDS ranged near or above 1,200 mg/L periodically in these wells. Since closure, TDS has decreased and is currently near or below 300 mg/L. The decreasing trends in these wells since closure is statistically significant.

Both wells have had period detections of VOC, although all VOC have been nondetected in E-3 Shallow for the last six years. In E-3 Deep, there were occasional detections of chloroethene, at 1 to 2 µg/L, between 2002 and 2013. Methyl tert-butyl ether (MTBE) was detected in E-3 Deep in 2002 (6.4 µg/L), 2009 (0.52 µg/L), and 2014 (0.74 µg/L). Tert-butyl alcohol (TBA) was detected in E-3 Deep in August 2014 at 13 µg/L. No VOC were detected in either E-3 Shallow or Deep in January 2016, although the more extensive VOC list (including MTBE and TBA, as part of the Constituents of Concern list) was not analyzed for first-half 2016. Constituents of concern (COC) are analyzed every five years; to date, COC have been analyzed twice since the landfill closure construction was completed, in 2009 and 2014. **Table 2** (following text) summarizes historical organic compound detections.

In the E-4 Shallow and Deep pair (not shown on **Figure 5** because of the short period-of-record), TDS in August 2014 was at 550 mg/L in the shallow aquifer and 460 mg/L in the deep aquifer. MTBE and TBA were nondetected in the shallow aquifer. In the deep aquifer, MTBE was detected at 0.6 µg/L and TBA at 6.9 µg/L in August 2014. The E-4 pair was not sampled for the current event.

At the immediate northern edge of the Landfill mound and crossgradient of the waste, the 6-E Shallow and 6-W Deep pair show no significant trends in TDS for the period-of-record. Since closure, however, both show significant decreasing trends. Over the last five years, TDS has hovered around 200 mg/L for both wells. VOC have always been nondetected in 6-E Shallow; VOC have not been detected since 2001 in 6-W Deep.

In the shallow aquifer farther north and crossgradient of the Landfill mound, well W-10 Shallow shows no significant trends for TDS, although there are distinct seasonal variations in TDS concentrations. TDS generally ranges between 100 and 300 mg/L, seasonally. VOC have always been nondetected.

UPGRADIENT OF LANDFILL MOUND

Figure 6 shows the time-series graphs for wells upgradient of the Landfill mound. The well pair W-1E Shallow and W-1W Deep historically showed relatively high TDS concentrations (500 to 800 mg/L) which were related to the previous waste ponds. After closure of the waste ponds, TDS in this well pair decreased almost immediately, and has remained relatively constant since. Current TDS values generally are less than 150 mg/L for the deep aquifer and less than 200 mg/L for the shallow aquifer. VOC have always been nondetected in this well pair.

Well SM-7, in the shallow aquifer to the north of the W-1E/W-1W pair, shows a similar pattern. Historic TDS values were as high as 1,200 mg/L because SM-7 was near former waste ponds. After closure, TDS decreased immediately, and since 2006 has been stable, ranging from 100 to 150 mg/L. There was one VOC detection in 2009 (hexachloroethane at 110 µg/L); there have been no other detections during the period of record (1996 to present). It is likely that the hexachloroethane detection in 2009 represented outside contamination of some sort, not aquifer conditions.

Upgradient of the Landfill mound and generally outside of the influence of other Landfill features, the W-9 Shallow/Deep well pair has shown consistent water quality since 1997. For that period, TDS in the shallow aquifer here has been consistently just over 240 mg/L. In the deep aquifer, TDS has shown more variability than in the shallow aquifer, ranging between 100 and 250 mg/L. VOC always have been nondetected in this well pair.

NEIGHBORING RESIDENTIAL WELLS

Residential wells were sampled on lots APN 110-140-16 (Lot 16) and 110-140-24 (Lot 24; **Figures 2** and **3**). Landfill wells closest to these lots are the E-3 and E-4 pairs.

In general, water quality in these wells is good, with all tested parameters meeting drinking water standards (all concentrations were below relevant Maximum Contaminant Levels).

VOC (USEPA Method 8260B list, full list including MTBE and TBA) were not detected.

All metals were non-detected except for manganese and zinc, which were detected at similar concentrations as the nearby landfill monitoring wells. These concentrations may be naturally occurring or derived from well casing materials.

A comparison of water quality between the neighboring wells and landfill wells is discussed further in the following section.

GRAPHICAL ANALYSES OF WATER QUALITY

Graphical analyses of water quality by Piper (trilinear) diagrams and Stiff patterns are a good way to illustrate similarities and differences between samples. **Figures 7** and **8** show a Piper diagram and Stiff patterns, respectively, for groundwater.

To construct these diagrams, it is necessary to have data for the major cations (magnesium, calcium, potassium, and sodium) and anions (bicarbonate, sulfate, and chloride). The most recent monitoring event for the landfill wells in which all of these constituents were analyzed was in late 2014 (August, October, and November). The major ions were analyzed in the neighboring wells in January 2016. Therefore, the following discussion is based on these sampling events.

Both types of diagrams are constructed by plotting the concentrations (in milliequivalents per liter, mEq/L) of cations and anions in different ways. For Piper diagrams, the cations and anions are plotted on their respective trilinear diagrams; lines parallel to the triangle edges then are extended into the upper diamond plotting area. The water-quality type of a given sample is plotted where those lines intersect. For Stiff patterns, the cations are plotted on one side of a vertical axis and the anions on the other side of the axis. Connecting the plotted concentrations with lines forms a shape which is particular to a given water-quality type.

What is important to note with Stiff patterns are the size and shape. The larger the size, the more mineralized the water (higher ion concentrations). The shape has no inherent significance; that is, a particular shape does not indicate good or bad water quality. Rather, the shapes of different samples can be compared to see whether the water quality is similar or whether mixing of waters has occurred.

Groundwater quality type in the residential wells is generally similar in type to groundwater beneath and in the vicinity of the landfill, but of slightly better quality. This is illustrated by the Piper diagram (**Figure 7**), herein. The residential wells plot at the far side of the grouping of most of the landfill wells, which plot between leachate (as represented by L-3) and background (W-1W Deep and W-10 Shallow). The plotting location of the neighboring wells illustrates that their water quality, although similar, is better than that from the monitoring wells downgradient of the landfill.

This is further illustrated by the Stiff patterns of water quality (**Figure 8**). The pattern for Lot 16 is quite similar to that for E-3 Shallow, but it is smaller. This indicates better groundwater quality at Lot 16.

The pattern for Lot 24, which is between Lot 16 and the landfill property boundary, shows some similarities to the patterns for the E-1 well pair, but also differences. The pattern for Lot 24 is similar in that the proportion of magnesium is higher relative to the other cations (sodium, potassium, and calcium). It is different in that the total amount of sodium, potassium, and calcium is lower than in the E-1 pair; the concentration of bicarbonate also is much lower in Lot 24 than in the E-1 pair.

Thus, the groundwater quality at Lots 16 and 24 may show slight evidence of landfill influence, as illustrated by the relative proportions of naturally occurring elements. The relative proportions of naturally occurring elements can be affected by both leachate and gas migration from a landfill. This has been interpreted to have occurred at the Crescent City Landfill, although the

effects are waning, as discussed in our report, *Proposed Updates to Monitoring & Reporting Program for Crescent City Landfill, January 13, 2016*. These effects, if occurring at the locations of Lots 16 and 24 are slight, and do not adversely affect the beneficial uses of this groundwater.

To further illustrate the general groundwater quality and changes over time, **Figure 9** shows a map of Stiff patterns for just the landfill wells. In the Landfill data set, there was sufficient data (all the cations and anions for a given well analyzed on the same date) to prepare Stiff patterns for 1995/1996, 2002, 2009, and 2014, to illustrate changes over time. Not all wells, however, had data for all these dates.

At the Landfill, the Stiff patterns for the upgradient well SM-7 clearly illustrate how the closure of the waste ponds improved groundwater quality. The 1996 pattern for SM-7 is significantly larger and of a different shape than the subsequent patterns.

As expected, the Stiff patterns of downgradient wells and those immediately adjacent to the waste show larger patterns than those upgradient or cross gradient. Wells E-2 Deep shows the largest current pattern (W-2 Deep, which has the highest TDS currently, did not have sufficient data to plot a 2014 pattern). Well SM-6 previously (1996) had a pattern similar in size and shape to the E-2 pattern, but its current pattern is more similar to background.

As with the TDS trends, the Stiff patterns for the E-3 pair illustrate water quality improvements since closure, by the decreasing pattern size.

There is a difference in the shape of the patterns between the E-1 Shallow/Deep location and the E-3 and E-4 location. The patterns at E-1 show similarities to the pattern of the leachate well, L-3, with a higher proportion of sodium compared to calcium. The patterns for E-3 and E-4 show a lower proportion of sodium compared to calcium. This difference suggests that groundwater quality in the E-1 location is affected by different conditions than at the E-3 / E-4 location, possibly because of landfill-gas impacts (discussed in the next section).

LANDFILL GAS IMPACTS ON WATER QUALITY

In addition to potentially imparting VOC to groundwater, landfill gas can affect the mineral quality of groundwater because of its relatively high carbon dioxide (CO_2) content. Higher CO_2 leads to acidic conditions which can then lead to dissolution of naturally occurring minerals in the formation. Typically, landfill-gas impacts to the mineral quality of groundwater is shown by increases in bicarbonate alkalinity, calcium, and magnesium concentrations, without increases in sodium or chloride concentrations.

At the Landfill, atmospheric gases (oxygen and carbon monoxide) and methane are measured quarterly in probes immediately adjacent to the waste and in compliance (perimeter) probes at the property boundary. Methane has always been nondetected and oxygen has always been at or near atmospheric concentrations (approximately 21%) in the compliance probes. Thus, there has never been evidence of landfill gas at the property boundary.

In the probes immediately adjacent to the waste, methane had been detected periodically over the last five years in probes G1, G5, G, G7, and G16 (note that a G designation has been added to the gas probe names herein, for ease of reference and to avoid confusion with groundwater well names; we are not proposing to change the names of any of the probes).

Oxygen concentrations in the probes adjacent to waste also show the influence of landfill gas. **Figure 10** shows graphs of oxygen concentrations in the near-waste probes; although carbon dioxide is not measured directly, its concentration can be inferred from the oxygen concentrations because these two gases are the major components of landfill gas (carbon monoxide generally is nondetected at the Landfill). That is, if oxygen concentration is low, carbon dioxide concentration will be high. From the graphs in **Figure 10**, it can be inferred that carbon dioxide usually is higher in probes G1 (at least before 2013), G3, G5, G6, G7, G8, and G16, mainly along the southern and southwestern edge of the landfill.

Figures 11 and **12** show time-series graphs of the parameters that often are affected by landfill gas, for background well 9 and downgradient wells to the east and south of the waste. If groundwater quality is affected by landfill gas, bicarbonate alkalinity, calcium, and magnesium concentrations may be higher, without increases in sodium or chloride concentrations.

For bicarbonate and calcium (**Figure 11**), wells E-2 Deep and W-2 Deep currently have the highest concentrations, with W-2 Deep showing an increasing trend since 2002. Bicarbonate and calcium in E-2 Deep, although higher, has been stable since 2007. Bicarbonate and calcium generally have decreased in E-3 Shallow and Deep, and E-1 Shallow, since 2005. In E-1 Deep, bicarbonate is variable.

Magnesium (**Figure 12**) shows similar trends in these wells, although the increasing trends in E-2 Deep and W-2 Deep are more pronounced, and the rate of increase has become greater since late 2011. Sodium (**Figure 12**) in most wells is variable and does not show observable trends.

Based on the above, it is possible that wells E-2 Deep and W-2 Deep are affected by landfill gas. If landfill-gas effects extend downgradient, they are mixed with effects from landfill leachate, as illustrated by the shapes of the Stiff patterns (**Figure 9**). The shapes of the Stiff patterns for the E-1, E-3, and E-4 well pairs suggest mixing of leachate (as illustrated by L-3) and landfill-gas (as illustrated by E-2 Deep) impacts.

Although there are indications of landfill-gas impacts on mineral groundwater quality, it does not appear that landfill gas has imparted significant concentrations of VOC to groundwater. For example, in E-2 Deep, immediately adjacent to waste, VOC have only been detected once (hexachloroethane at 110 µg/L in August 2009); between 1996 and through 2015, all other VOC have been nondetected. In W-2 Deep, VOC have been nondetected for at least 20 years.

TABLE 1
Summary of Current Monitoring Data - Crescent City Landfill

Point	Date	TDS (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Alkalinity (mg/l)	Conductivity (umhos/cm)	pH (units)	Nitrate (mg/l)	Fluoride (mg/l)	Bicarbonate (mg/l)	Carbonate (mg/l)	COD (mg/l)	Calcium (mg/l)
E-1_DEEP	01/27/16	600	n/a	<0.50	450	1000	7.0	<0.10	<0.10	450	<1.0	14	92
E-1_SH	01/27/16	280	n/a	1.7	220	560	6.8	<0.10	<0.10	200	<1.0	5.7	25
E-2_DEEP	01/27/16	520	n/a	<0.50	390	830	7.6	<0.10	<0.10	390	1.6	<5.0	100
E-3_DEEP	01/26/16	320	n/a	<0.50	260	540	6.9	<0.10	<0.10	260	<1.0	5.7	56
E-3_SH	01/26/16	230	n/a	1.8	180	380	7.1	0.3	<0.10	180	<1.0	7.4	51
E-4_DEEP	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-4_SH	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W-1W_SH	01/27/16	110	n/a	1.9	52	130	7.2	0.2	<0.10	52	<1.0	67	12
W-IE_DEEP	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W-2_DEEP	01/27/16	870	n/a	<0.50	420	1200	6.7	<0.10	<0.10	420	<1.0	12	130
W-3S_SH	01/27/16	110	n/a	3.0	52	130	6.8	<0.10	<0.10	52	<1.0	12	8.4
W-6E_SH	01/26/16	190	n/a	1.7	120	300	7.2	<0.10	<0.10	120	<1.0	7.3	27
W-6W_DEEP	01/26/16	190	n/a	<0.50	120	270	7	<0.10	<0.10	120	<1.0	7.4	13
W-8_SH	01/26/16	100	n/a	1.4	58	150	7.2	<0.10	<0.10	58	<1.0	14	11
W-9_SH	01/26/16	91	n/a	1.6	45	110	6.9	<0.10	<0.10	45	<1.0	14	2.6
W-9_DEEP	01/26/16	240	n/a	<0.50	170	380	7.1	<0.10	<0.10	170	<1.0	10	60
W-10_SH	01/27/16	84	n/a	1.2	37	95	7.7	0.11	<0.10	37	<1.0	7.9	9.8
SM-6_SH	01/27/16	61	n/a	1.1	39	89	6.6	0.2	<0.10	39	<1.0	38	7.9
SM-7_SH	01/27/16	110	n/a	2.5	42	150	6.6	<0.10	<0.10	42	<1.0	7.9	4.9
S-1	01/27/16	n/a	n/a	n/a	n/a	n/a	7.6	<0.10	n/a	n/a	n/a	30	4.4
S-2	01/27/16	n/a	n/a	n/a	n/a	n/a	6.9	<0.10	n/a	n/a	n/a	280	41
S-3	01/27/16	n/a	n/a	n/a	n/a	n/a	7.1	0.16	n/a	n/a	n/a	18	5.8
L-3	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
110-140-24	04/07/16	149	10	1.8	81	210	7.73	<0.10	<1.0	81	<1	6.9	22
110-140-16	04/07/16	210	9.8	2	170	385	7.85	<0.10	<1.0	170	<1	<1.0	50

Notes: NS = Not sampled. Only VOC and metals that were detected are listed.

TABLE 1
Summary of Current Monitoring Data - Crescent City Landfill

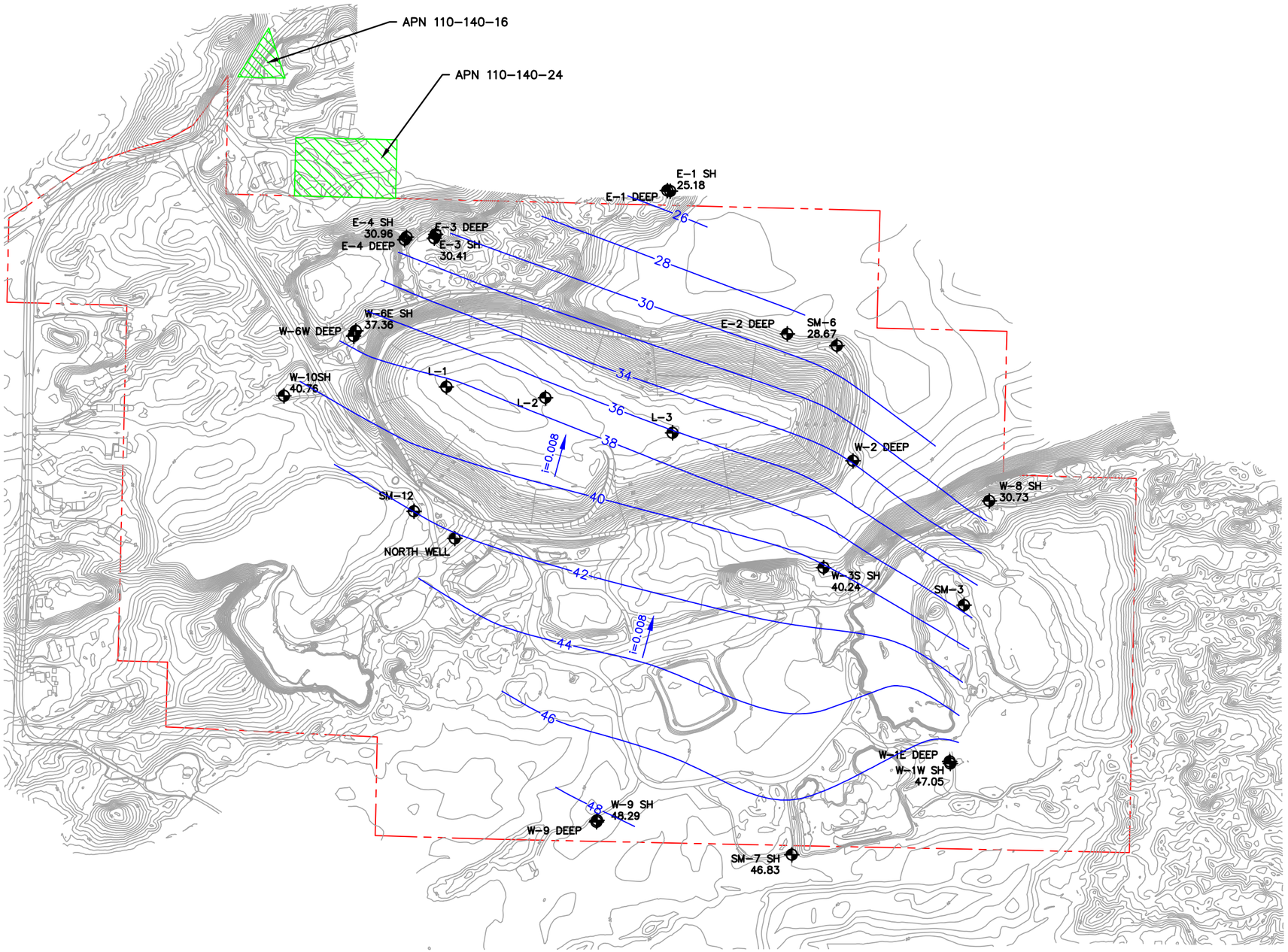
Point	Date	Magnesium (mg/l)	Manganese (mg/l)	Potassium (mg/l)	Sodium (mg/l)	Hardness (mg/l)	Toluene (ug/L)	Benzene (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cobalt (ug/L)	Nickel (ug/L)	Zinc (ug/L)
E-1_DEEP	01/27/16	95	2.3	3.3	24	620	<0.50	<0.50	18	12	<5	18	<10
E-1_SH	01/27/16	33	0.36	12	24	200	<0.50	<0.50	7.4	19	<5	11	<10
E-2_DEEP	01/27/16	72	0.61	3.3	15	560	<0.50	<0.50	35	12	<5	5.2	<10
E-3_DEEP	01/26/16	32	1.1	8.3	17	270	<0.50	<0.50	11	11	<5	<5	<10
E-3_SH	01/26/16	21	0.36	2.9	9.5	210	<0.50	<0.50	<5	<5	<5	6.7	<10
E-4_DEEP	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-4_SH	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W-1W_SH	01/27/16	9.1	0.0045	0.44	5.9	67	<0.50	<0.50	<5	<5	<5	<5	<10
W-IE_DEEP	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W-2_DEEP	01/27/16	120	7.2	0.8	16	790	<0.50	<0.50	34	12	7.4	21	12
W-3S_SH	01/27/16	11	0.19	0.49	5.9	65	<0.50	<0.50	5.3	<5	<5	17	<10
W-6E_SH	01/26/16	18	0.081	0.86	12	140	<0.50	<0.50	<5	<5	<5	<5	<10
W-6W_DEEP	01/26/16	23	0.26	0.94	12	130	<0.50	<0.50	5.4	<5	<5	<5	<10
W-8_SH	01/26/16	9.6	0.018	0.56	4.9	67	<0.50	<0.50	<5	<5	<5	<5	<10
W-9_SH	01/26/16	9.5	0.01	0.96	5.9	46	<0.50	<0.50	<5	<5	<5	<5	<10
W-9_DEEP	01/26/16	12	0.2	1.1	12	200	<0.50	<0.50	6.1	<5	<5	5.6	<10
W-10_SH	01/27/16	4.4	0.0058	0.28	2.7	43	<0.50	<0.50	<5	<5	<5	<5	<10
SM-6_SH	01/27/16	3.6	0.029	0.83	2.3	35	0.90	24	<5	9.3	<5	5.9	600
SM-7_SH	01/27/16	11	0.045	0.85	10	56	<0.50	<0.50	<5	<5	<5	25	<10
S-1	01/27/16	11	0.024	2.8	6.5	57	<0.50	<0.50	<5	<5	<5	8.1	<10
S-2	01/27/16	21	0.20	7.2	11	190	<0.50	<0.50	<5	110	<5	5.8	<10
S-3	01/27/16	8.6	0.064	1.4	8.5	50	<0.50	<0.50	<5	6	<5	<5	<10
L-3	NS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
110-140-24	04/07/16	72	0.014	0.61	5.2	83	<0.50	<0.50	<5	<5	<5	<5	22
110-140-16	04/07/16	9.2	0.0099	0.89	9.7	160	<0.50	<0.50	<5	<5	<5	<5	16
Notes: NS = Not sampled. Only VOC													

LAWRENCE & ASSOCIATES
ENGINEERS & GEOLOGISTS

SITE VICINITY MAP

PROJECT NAME: CRESCENT CITY L.F.	PROJECT 015063.00	DATE: 4/22/2016
CLIENT: DNSWMA	DRAWN BY: D. ZAITZ	FIGURE 1
SCALE: 1 in = 0.5 miles	CHECKED BY: B. LAMPLEY	

Z:\p\015063.00_del norte landfill\8x11.mxd



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LEGEND

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22	GROUNDWATER ELEVATION CONTOUR, FEET MSL
i=0.006	GROUNDWATER GRADIENT FT/FT
	PARCELS OF RESIDENTIAL WELLS SAMPLED ON APRIL 7, 2016; DEPTH TO WATER NOT AVAILABLE

NO.	DATE	REVISIONS	BY	CHK

PROJECT NO: 015063.00	PROJECT ID:
DRAWN BY: D. ZAITZ	SCALE: 1"=200'
ENGINEER:	DATE:
CHECKED BY:	DATE:

ORIGINAL SCALE IN INCHES 0 1 2

LAWRENCE & ASSOCIATES ENGINEERS & GEOLOGISTS

DEL NORTE SOLID WASTE MGMT AUTHORITY

CRESCENT CITY LANDFILL

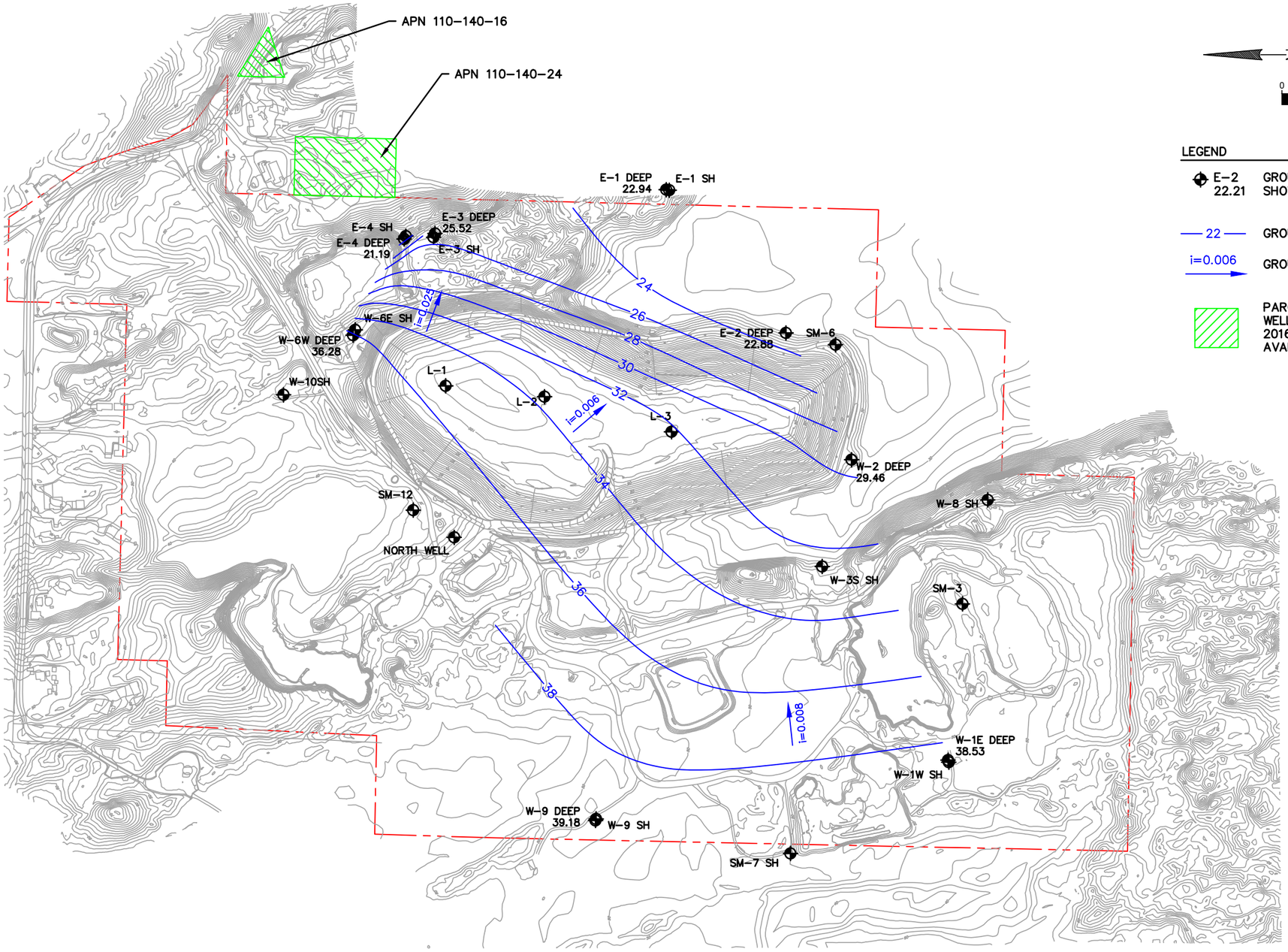
SHALLOW AQUIFER GROUNDWATER ELEVATION CONTOUR MAP – JAN. 26, 2016

DRAWING: FIGURE 2

SHEET: OF

DATE: 4/22/2016

P:\015063.00_del norte landfill\gw-jan16a.dwg D.B.Z. 4/22/2016



0 300 600 Feet

LEGEND

E-2 22.21	GROUNDWATER MONITORING WELL SHOWN GROUNDWATER ELEVATION FEET MSL
22	GROUNDWATER ELEVATION CONTOUR, FEET MSL
i=0.006	GROUNDWATER GRADIENT FT/FT
	PARCELS OF RESIDENTIAL WELLS SAMPLED ON APRIL 7, 2016; DEPTH TO WATER NOT AVAILABLE

NO.	DATE	REVISIONS	BY	CHK

PROJECT NO: 015063.00	PROJECT ID:
DRAWN BY: D. ZAITZ	SCALE: 1"=150'
ENGINEER:	DATE:
CHECKED BY:	DATE:

ORIGINAL SCALE IN INCHES
0 1 2

LAWRENCE & ASSOCIATES
ENGINEERS & GEOLOGISTS

DEL NORTE SOLID WASTE MGMT AUTHORITY

CRESCENT CITY LANDFILL

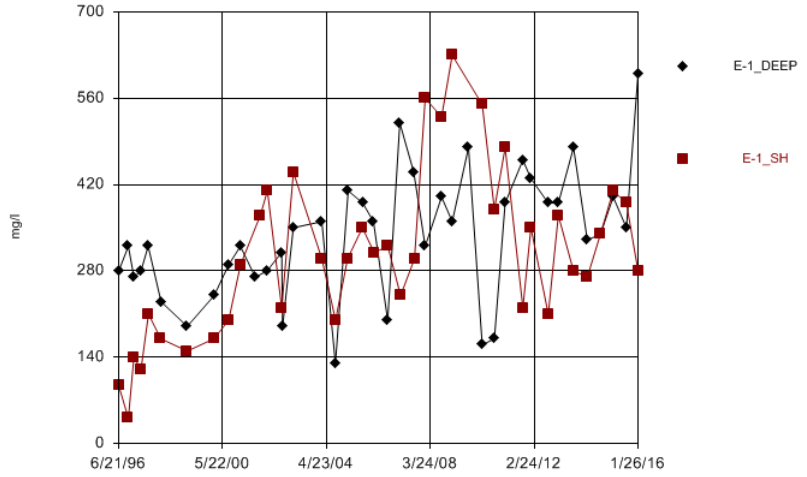
DEEP AQUIFER GROUNDWATER ELEVATION CONTOUR MAP – JAN. 26, 2016

DRAWING: FIGURE 3
SHEET: OF
DATE: 4/22/2016

P:\015063.00_del norte landfill\gw-jan16d.dwg D.B.Z. 4/22/2016

WQStat Plus™ v.9.4.41

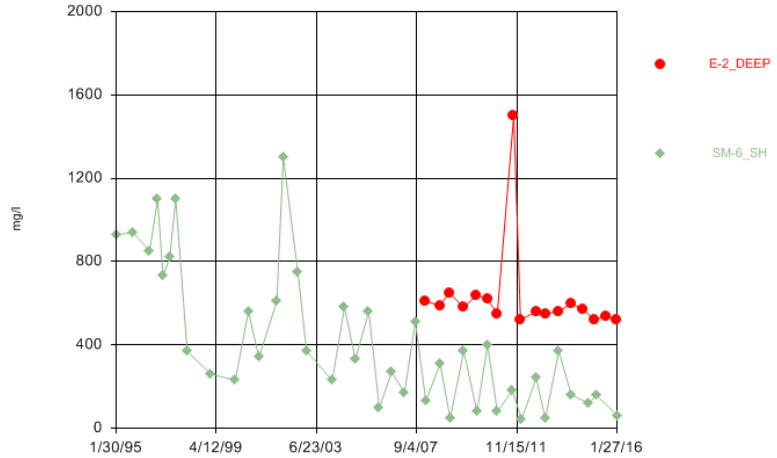
Time Series



Constituent: TDS Analysis Run 4/27/2016 10:51 AM View: Downgradient
Facility: Crescent City Landfill Data File: CCLF_Stats

WQStat Plus™ v.9.4.41

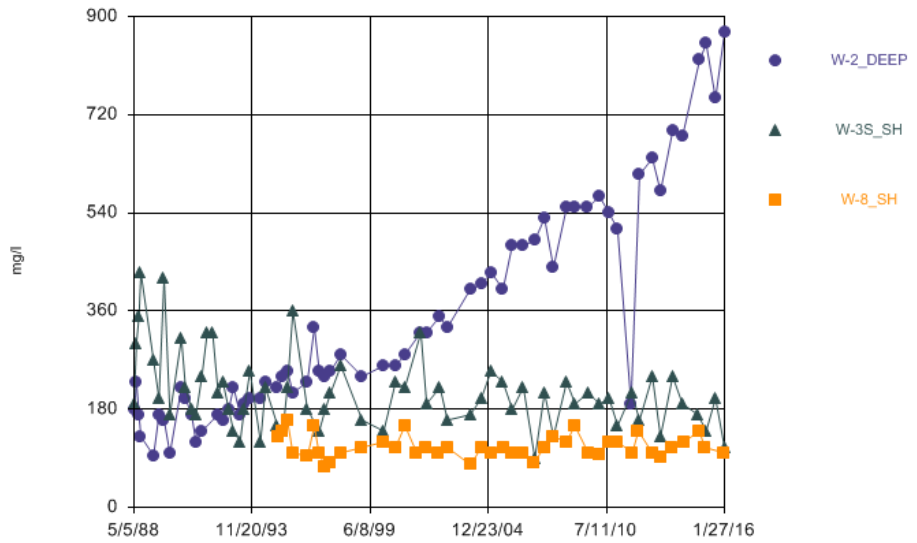
Time Series



Constituent: TDS Analysis Run 4/27/2016 10:54 AM View: Downgradient
Facility: Crescent City Landfill Data File: CCLF_Stats

WQStat Plus™ v.9.4.41

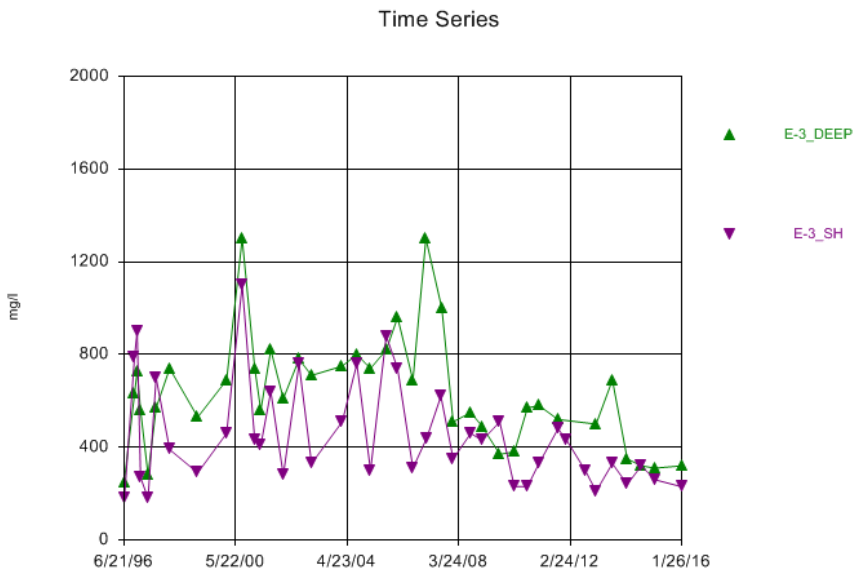
Time Series



Constituent: TDS Analysis Run 4/27/2016 10:55 AM View: Downgradient
Facility: Crescent City Landfill Data File: CCLF_Stats

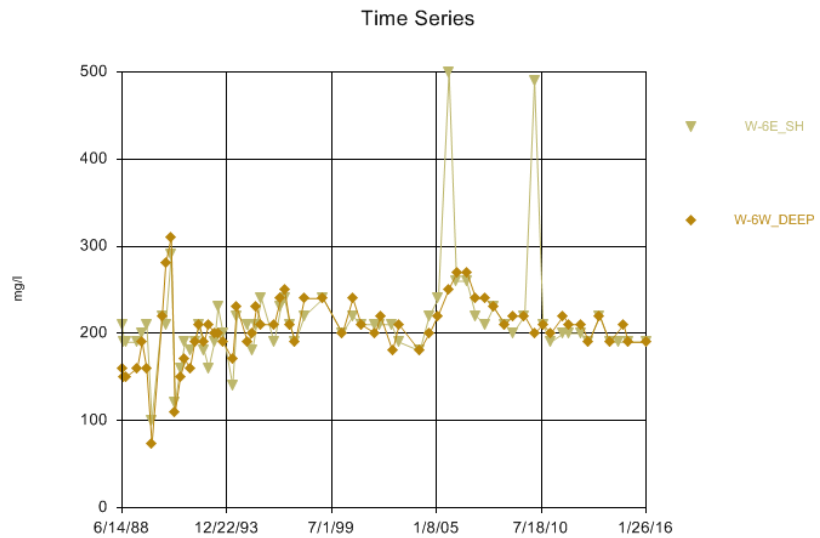
FIGURE 4

WQStat Plus™ v.9.4.41



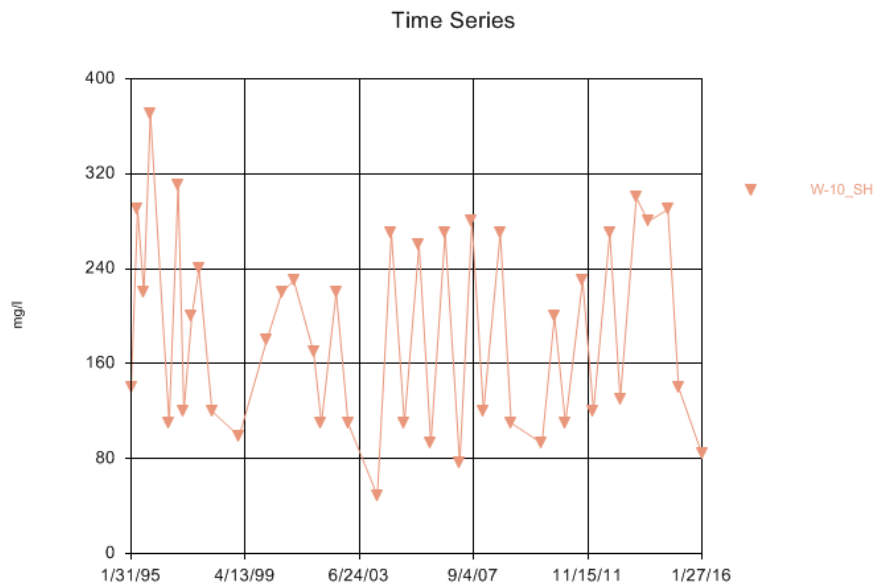
Constituent: TDS Analysis Run 4/27/2016 10:59 AM View: Downgradient
Facility: Crescent City Landfill Data File: CCLF_Stats

WQStat Plus™ v.9.4.41



Constituent: TDS Analysis Run 4/27/2016 11:00 AM View: Downgradient
Facility: Crescent City Landfill Data File: CCLF_Stats

WQStat Plus™ v.9.4.41

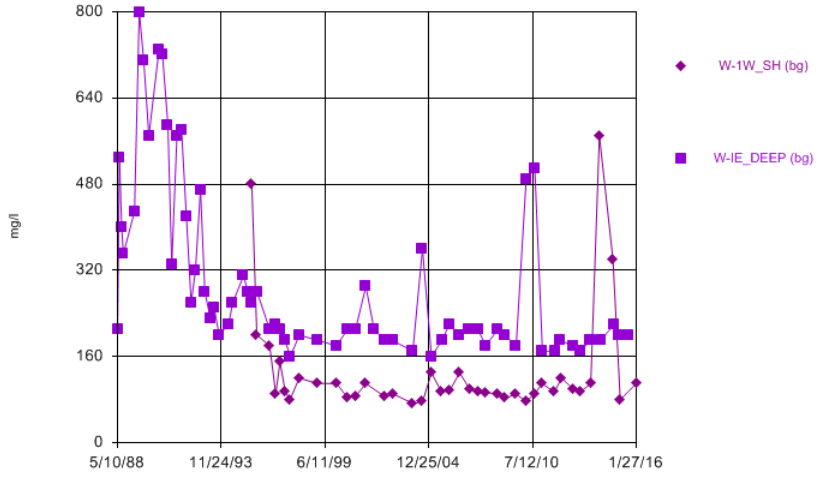


Constituent: TDS Analysis Run 4/27/2016 11:01 AM View: Downgradient
Facility: Crescent City Landfill Data File: CCLF_Stats

FIGURE 5

WQStat Plus™ v.9.4.41

Time Series

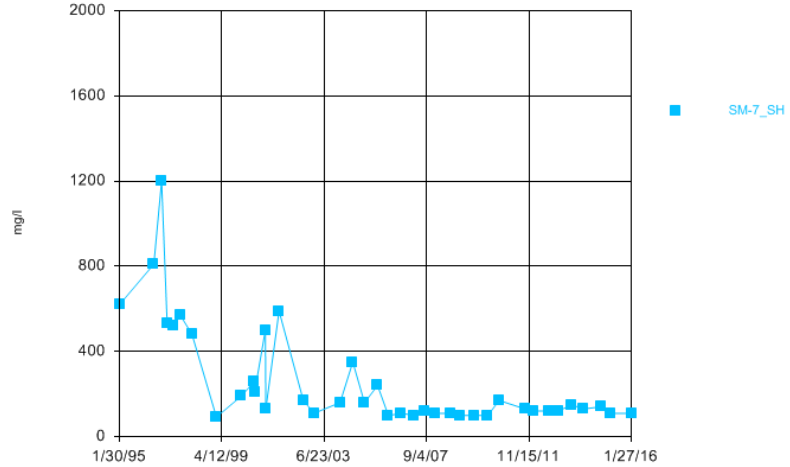


Constituent: TDS Analysis Run 4/27/2016 11:02 AM View: Downgradient

Facility: Crescent City Landfill Data File: CCLF_Stats

WQStat Plus™ v.9.4.41

Time Series

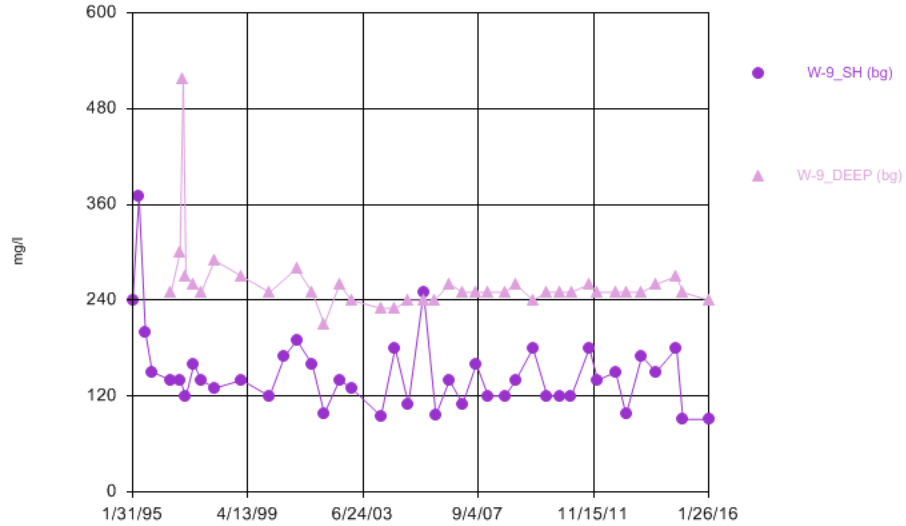


Constituent: TDS Analysis Run 4/27/2016 11:03 AM View: Downgradient

Facility: Crescent City Landfill Data File: CCLF_Stats

WQStat Plus™ v.9.4.41

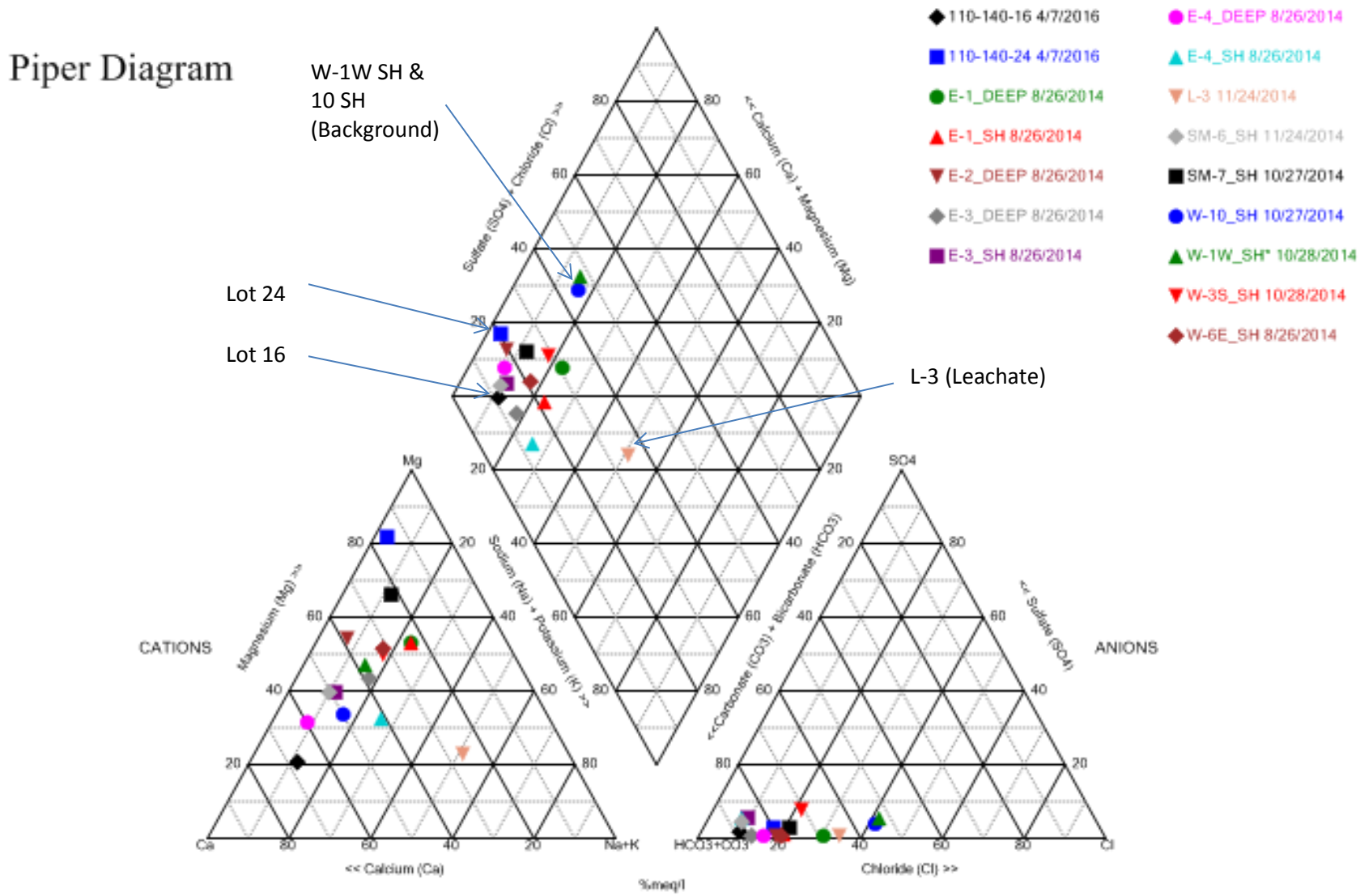
Time Series



Constituent: TDS Analysis Run 4/27/2016 11:04 AM View: Downgradient

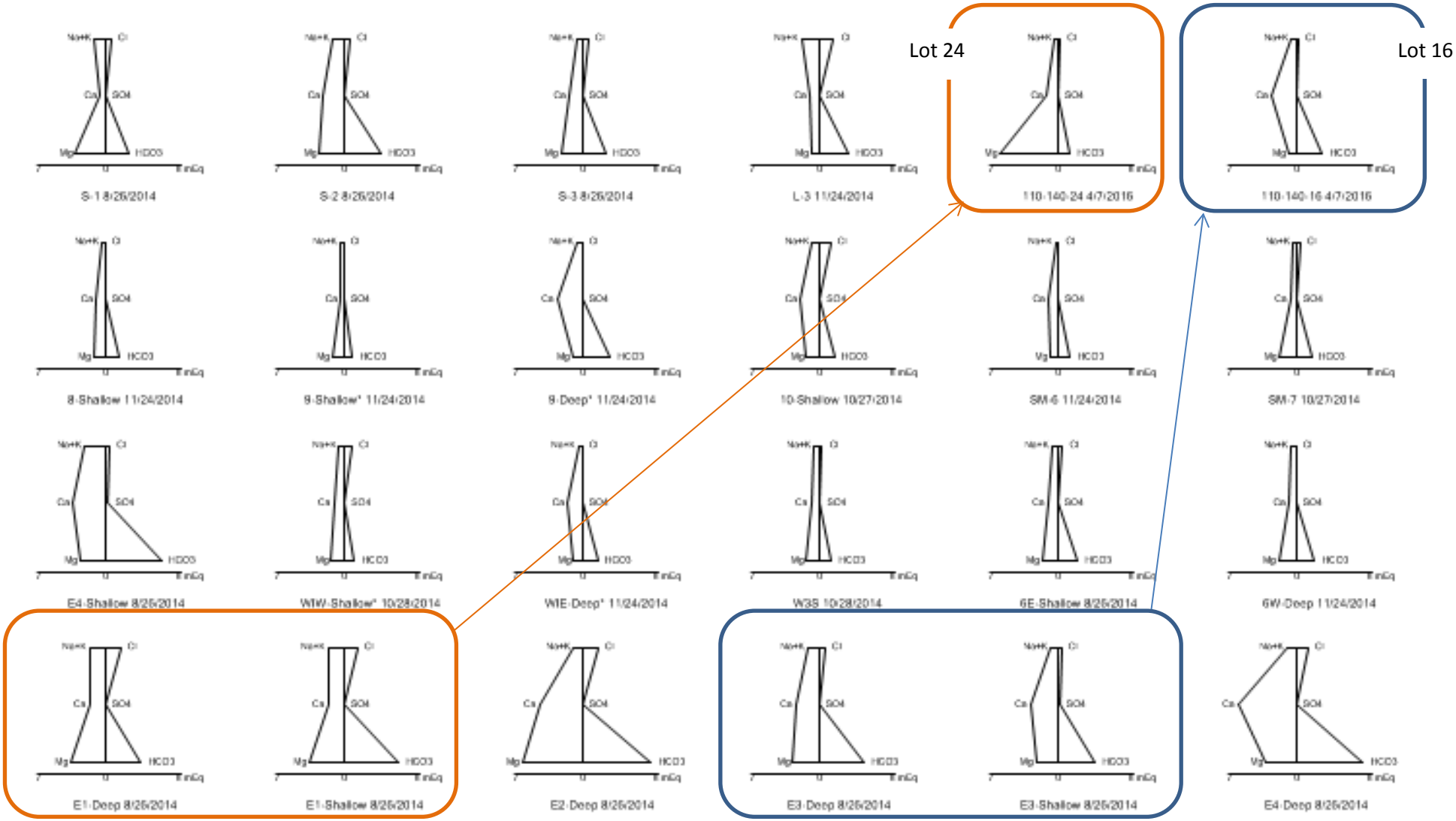
Facility: Crescent City Landfill Data File: CCLF_Stats

FIGURE 6



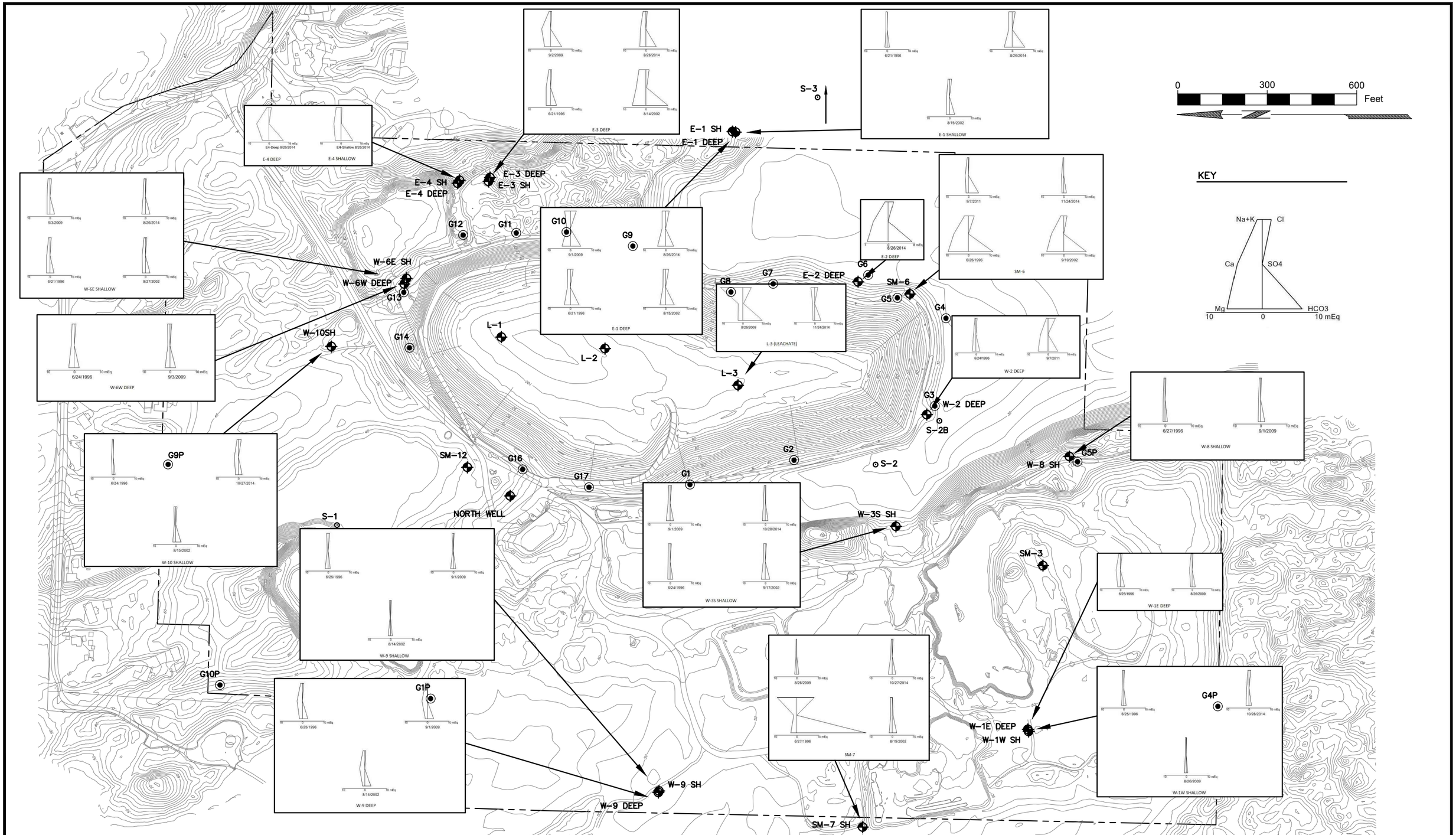
Crescent City Landfill – Piper Diagram of Water Quality

FIGURE 7



Crescent City Landfill – Stiff Patterns of Water Quality

FIGURE 8



NO.	DATE	REVISIONS	BY	CHK

PROJECT NO: 015063.00	PROJECT ID:
DRAWN BY: D. ZAITZ	SCALE: 1"=150'
ENGINEER:	DATE:
CHECKED BY:	DATE:

ORIGINAL SCALE IN INCHES
0 1 2

LAWRENCE & ASSOCIATES
ENGINEERS & GEOLOGISTS

DEL NORTE SOLID WASTE MGMT AUTHORITY

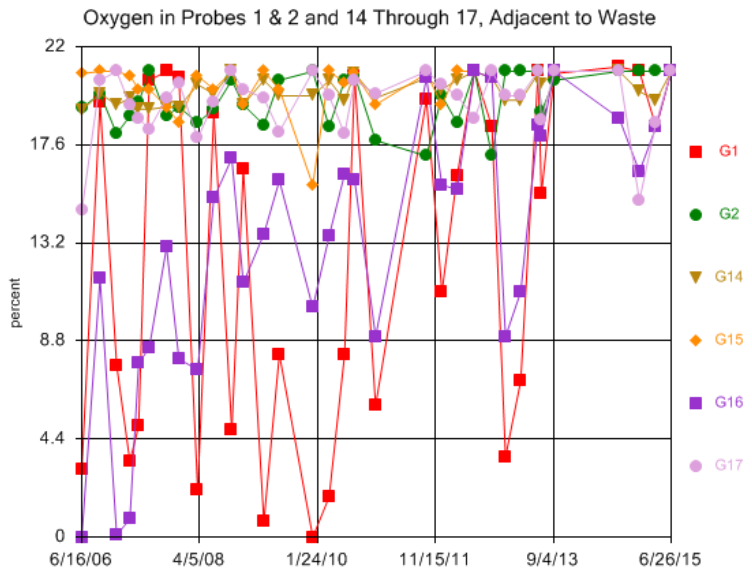
CRESCENT CITY LANDFILL

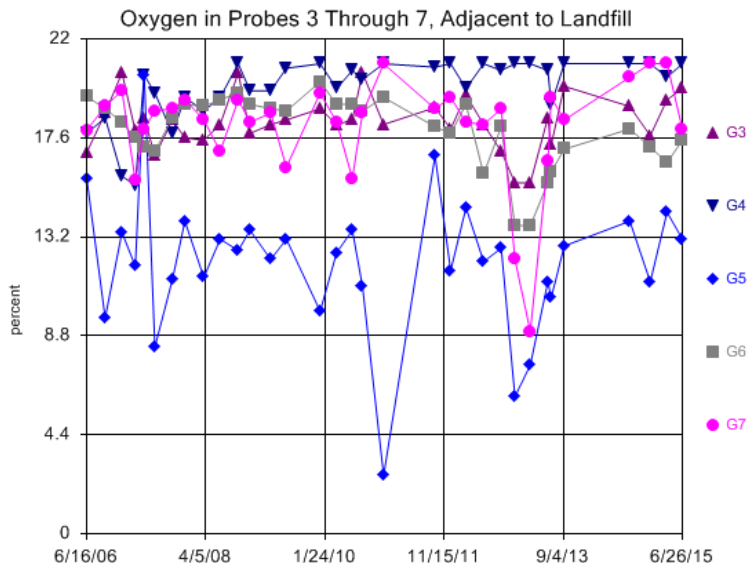
STIFF DIAGRAMS

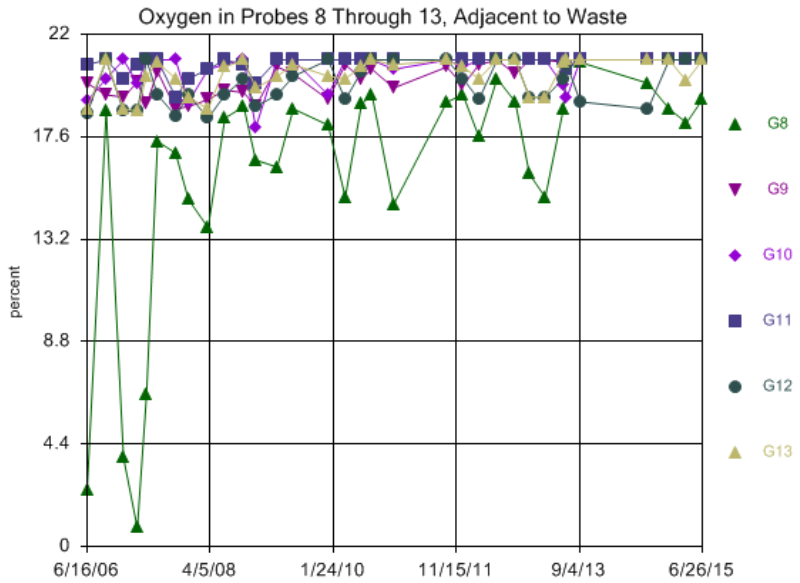
DRAWING: FIGURE 9
SHEET: OF
DATE: 5/4/2016

p:\015063.00_del norte landfill\site.dwg J.R.B. 5/4/2016

CRESCENT CITY LANDFILL



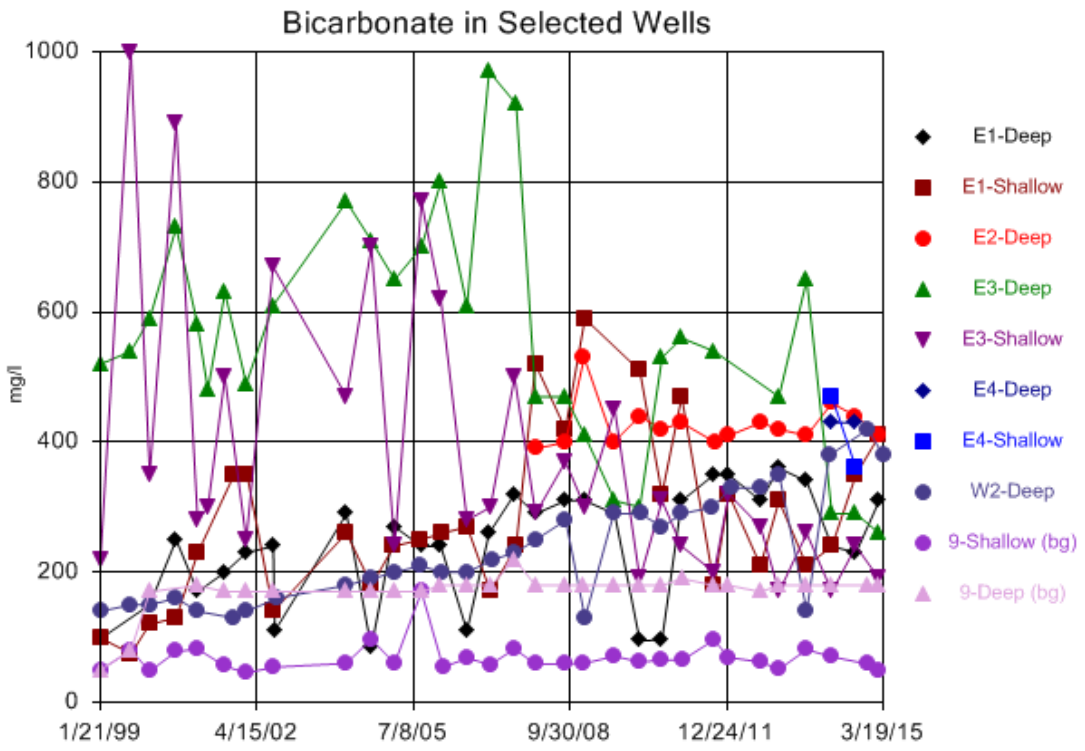




G designations added for this report only to distinguish gas probes from wells in the database used for this analysis.

FIGURE 10

CRESCENT CITY LANDFILL



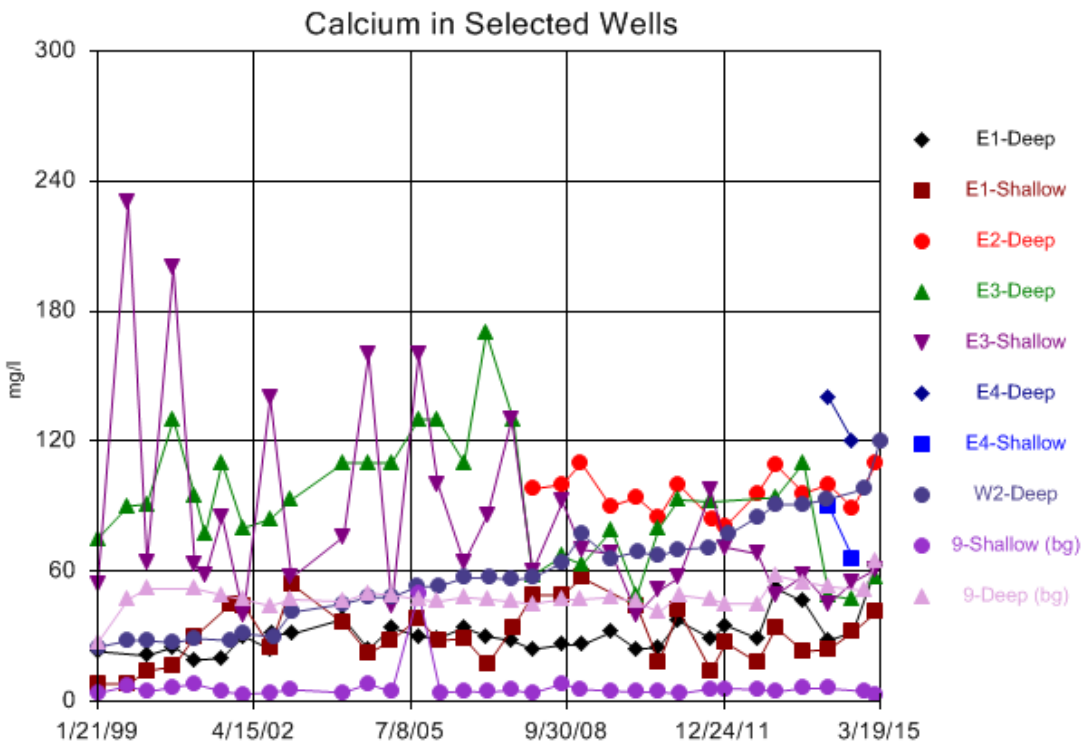
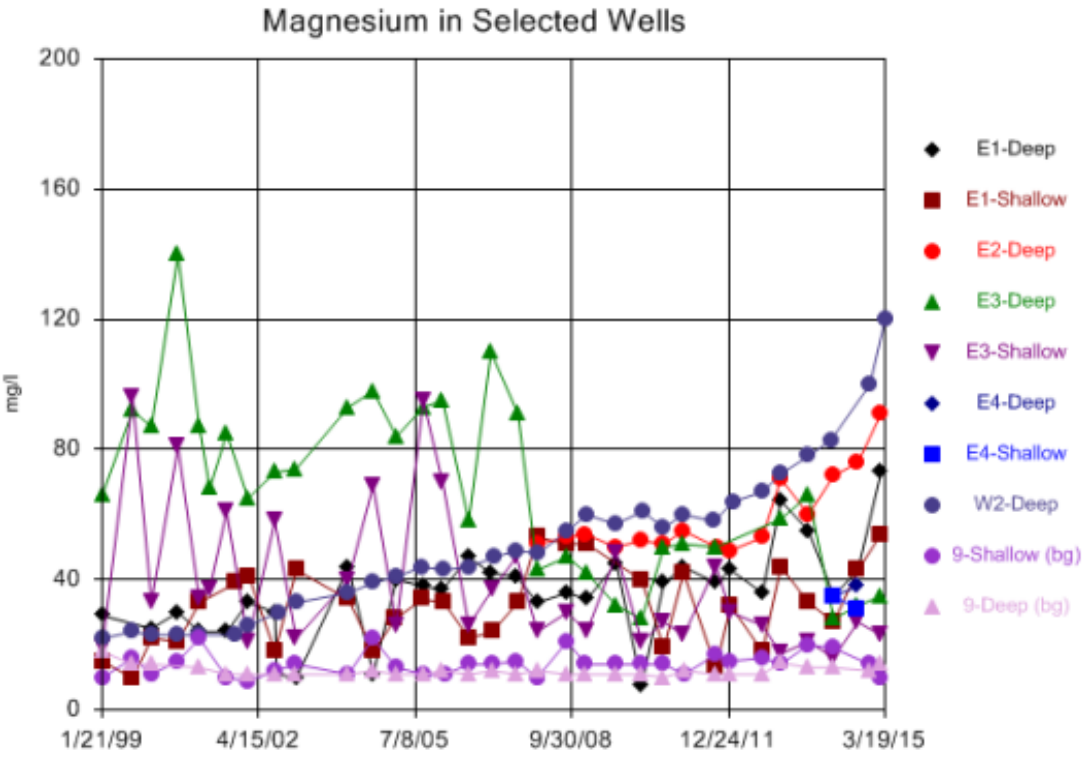


FIGURE 11

CRESCENT CITY LANDFILL



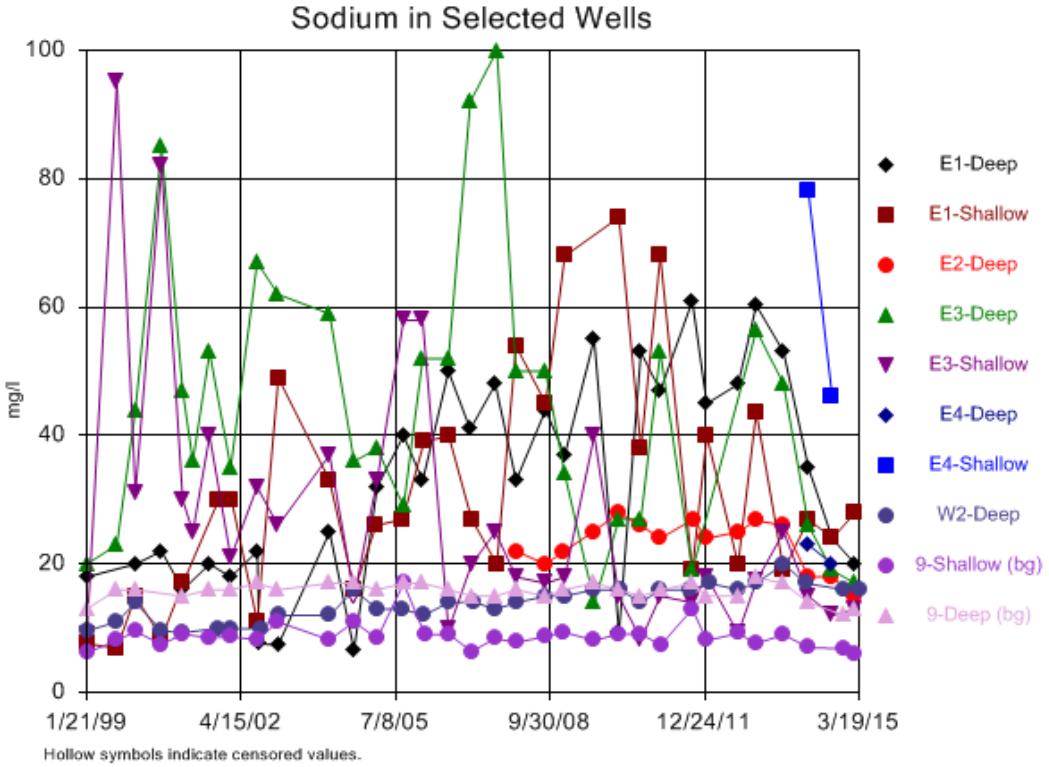


FIGURE 12

ATTACHMENT A

Field Data & LABORATORY SHEETS

FIELD DATA - CURRENT SAMPLING EVENT

CRESCENT CITY LANDFILL

Geotracker Name	Original Well Depth	Current Well Depth	TOC Elevation	Casing Diameter	Date	Time	Initials of sampler	Depth to Water	Groundwater Elevation	Elev. Of Well Bottom	Water Column
	feet bgs	feet bgs	feet MSL	inches				feet RP	feet MSL	feet MSL	feet
E -1 DEEP	60	56.25	50.63	4	25-Jan-16	9:10 AM	KW/EL	27.69	22.94	-5.62	28.56
E -1 SH	30	33.08	52.76	4	25-Jan-16	9:08 AM	KW/EL	27.58	25.18	19.68	5.50
E - 3 DEEP	70	58.6	56.54	4	25-Jan-16	8:55 AM	KW/EL	31.02	25.52	-2.06	27.58
E - 3 SH	38	36.55	57.65	4	25-Jan-16	9:57 AM	KW/EL	27.24	30.41	21.1	9.31
E-4 SH	39.4	39.4	58.34	4	25-Jan-16	9:44 AM	KW/EL	27.38	30.96	18.94	12.02
E - 4 DEEP	69.97	69.97	57.94	4	25-Jan-16	9:47 AM	KW/EL	36.75	21.19	-12.03	33.22
W-6W DEEP	44.5	45.45	47.03	4	25-Jan-16	9:35 AM	KW/EL	10.75	36.28	1.58	34.70
W-6E SH	36	37	47.06	4	25-Jan-16	9:38 AM	KW/EL	9.70	37.36	10.06	27.30
W-10 SH	14	14	45.42	4	25-Jan-16	9:26 AM	KW/EL	4.66	40.76	31.42	9.34
E - 2 DEEP	45	45.3	26.86	4	25-Jan-16	10:43 AM	KW/EL	3.98	22.88	-18.44	41.32
SM-6 SH	10	13	28.57	4	25-Jan-16	10:54 AM	KW/EL	-0.10	28.67	15.57	13.10
W-2 DEEP	26	25.35	32.61	4	25-Jan-16	11:02 AM	KW/EL	3.15	29.46	7.26	22.20
L-1			102.37	6	25-Jan-16		KW/EL		NA	102.37	
L-2			101.97	6	25-Jan-16		KW/EL		NA	101.97	
L-3		60.91	98.06	6	25-Jan-16	10:34 AM	KW/EL		NA	37.15	60.91
SM-7 SH	17	18.54	50.38	4	25-Jan-16	11:23 AM	KW/EL	3.54	46.84	31.84	15.00
W-1E DEEP	48.5	49.65	52.71	4	25-Jan-16	11:33 AM	KW/EL	14.18	38.53	3.06	35.47
W-1W SH	17.5	19.21	52.50	4	25-Jan-16	11:29 AM	KW/EL	5.45	47.05	33.29	13.76
W-8 SH	40	39.18	53.58	4	25-Jan-16	11:52 AM	KW/EL	22.85	30.73	14.4	16.33
W-3S SH	20	21	43.76	4	25-Jan-16	11:42 AM	KW/EL	3.52	40.24	22.76	17.48
North Well					25-Jan-16		KW/EL		na	0	0.00
SM-12 (S-1) Surface	7		44.88	4	25-Jan-16		KW/EL		na	44.88	0.00
W-9 DEEP	70	68.95	61.07	4	25-Jan-16	11:16 AM	KW/EL	21.88	39.19	-7.88	47.07
W-9 SH	20	20.52	53.13	4	25-Jan-16	11:13 AM	KW/EL	4.84	48.29	32.61	15.68
WW-1 shallow			50.38	4							
WW-2 shallow			54.74	4							
WW-3 shallow			52.36	4							
WS-West			40.00								
WS-East			40.10								
Notes:	Original well depth = orignal bottom of casing; current well depth = well depth measured on sampling date										
	feet bgs = feet below ground surface										
	feet MSL = elevation in feet Mean Sea Level										
	feet RP = feet below reference point (top of casing)										

FIELD DATA - CURRENT SAMPLING EVENT

CRESCENT CITY LANDFILL

Source Pump	Description for Final Map	Current Measured Depth	Depth to Water	Purge Volume	Date	Time	Initals of Sampler	Temper-ature	Specific Conductance	pH	Salinity	TDS	Comments / Flow
		feet bgs	feet RP	gallons				degrees F	uS	units	mg/L	mg/L	
gw/d	E -1 DEEP	56.25	27.64	57.20	1/26/2016	11:40 AM	KW/EL						
gw/d	E -1 SH	33.08	27.10	12.00	1/26/2016	11:25 AM	KW/EL						Dry @ 10
gw/d	E-2 DEEP	45.3	4.10	82.40	1/26/2016	12:30 PM	KW/EL						
gw/d	E - 3 DEEP	58.6	30.96	55.20	1/26/2016	11:00 AM	KW/EL						
gw/d	E - 3 SH	36.55	27.20	18.80	1/26/2016	10:45 AM	KW/EL						
gw/d	W-1E DEEP	49.65			1/26/2016		KW/EL						
gw/d	W-6W DEEP	45.45	10.69	69.80	1/26/2016	9:40 AM	KW/EL						Dry @ 27.5, 22
gw/d	W-6E SH	37	9.68	54.50	1/26/2016	9:55 AM	KW/EL						
gw/d	W-8 SH	39.18	21.79	34.80	1/26/2016	2:30 PM	KW/EL						
gw/d	W-9 DEEP	68.95	28.80	80.30	1/26/2016	1:50 PM	KW/EL						
gw/d	W-9 SH	20.52	4.87	31.30	1/26/2016	2:05 PM	KW/EL						
gw/m	W-1W SH	19.21	5.74	26.00	1/27/2016	11:50 AM	KW/EL						
gw/m	W-2 DEEP	25.35	3.18	44.40	1/27/2016	9:45 AM	KW/EL						Dry @ 15, 5
gw/m	W-3S SH	21	3.61	34.80	1/27/2016	11:20 AM	KW/EL						
gw/m	W-10 SH	14	4.65	18.70	1/27/2016	10:40 AM	KW/EL						
gw/m	SM-7 SH	18.54	3.65	29.80	1/27/2016	11:40 AM	KW/EL						
hand	E-4 SH	39.4			1/27/2016		KW/EL						
hand	E-4 DEEP	69.97			1/27/2016		KW/EL						
gw/hose	SM-6 SH	13	3.14	19.70	1/27/2016	1:00 PM	KW/EL						Dry @ .5, 1 (1.5 hrs)
hose	L-3	60.91			1/27/2016		KW/EL						
sw	S-1 Surface				1/27/2016	12:20 PM	KW/EL						
sw	S-2 Surface				1/27/2016	12:40 PM	KW/EL						
sw	S-3 Surface				1/27/2016	1:30 PM	KW/EL						
Notes:	feet bgs = feet below ground surface												
	feet RP = feet below reference point (top of casing)												

Meter not working

NORTH COAST LABORATORIES LTD.

February 09, 2016

Del Norte Solid Waste Authority
1700 State Street
Crescent City, CA 95531

Order No.: 1601416
Invoice No.: 125756
PO No.:

Attn:

ELAP No.1247-Expires July 2016

RE: Landfill Groundwater

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	E-1 Deep
01B	E-1 Deep
01C	E-1 Deep(DISSOLVED)
01D	E-1 Deep
02A	E-1 SH
02B	E-1 SH
02C	E-1 SH(DISSOLVED)
02D	E-1 SH
03A	E-2 Deep
03B	E-2 Deep
03C	E-2 Deep(DISSOLVED)
03D	E-2 Deep
04A	E-3 Deep
04B	E-3 Deep
04C	E-3 Deep(DISSOLVED)
04D	E-3 Deep
05A	E-3 SH
05B	E-3 SH
05C	E-3 SH(DISSOLVED)
05D	E-3 SH
06A	W-6W Deep
06B	W-6W Deep
06C	W-6W Deep(DISSOLVED)
06D	W-6W Deep
07A	W-6E SH
07B	W-6E SH
07C	W-6E SH(DISSOLVED)
07D	W-6E SH
08A	W-8 SH

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Roxanne Moore, Project Manager

NORTH COAST LABORATORIES LTD.

February 09, 2016

Del Norte Solid Waste Authority
1700 State Street
Crescent City, CA 95531

Order No.: 1601416
Invoice No.: 125756
PO No.:

Attn:

ELAP No.1247-Expires July 2016

RE: Landfill Groundwater

SAMPLE IDENTIFICATION

08B	W-8 SH
08C	W-8 SH(DISSOLVED)
08D	W-8 SH
09A	W-9 Deep
09B	W-9 Deep
09C	W-9 Deep(DISSOLVED)
09D	W-9 Deep
10A	W-9 SH
10B	W-9 SH
10C	W-9 SH(DISSOLVED)
10D	W-9 SH

Approved for release by:

Roxanne Moore, Project Manager

Date: 09-Feb-2016
WorkOrder: 1601416

CASE NARRATIVE

Samples for dissolved metals analysis must be filtered within 15 minutes of collection. Therefore, any samples that were filtered by the laboratory were filtered past the official holding time.

Samples for pH, residual chlorine and dissolved oxygen analysis must be analyzed within 15 minutes of collection. Therefore, any samples requiring these analyses were analyzed past the official holding time.

Silver:
The matrix spike/matrix spike duplicate (MS/MSD) recoveries for Sample E-2 Deep(DISSOLVED) were below the acceptance limit. This may indicate a negative sample matrix interference for this analyte.

Zinc:
The matrix spike recoveries were near or exceeded the upper acceptance limit. There was no analyte detected in the sample; therefore the data were accepted.

Calcium/Magnesium/Sodium:
The matrix spike recoveries were not evaluated due to the large amount of analyte in Sample E-2 Deep(DISSOLVED)

Potassium:
The matrix spike recoveries exceeded the upper acceptance limit.

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-1 Deep
Lab ID: 1601416-01A

Received: 1/27/2016
Collected: 1/26/2016 11:40

Test Name: Chemical Oxygen Demand **Reference:** HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	14		5.0	mg/L	1.0	2/1/2016	2/2/2016

Client Sample ID: E-1 Deep
Lab ID: 1601416-01B

Received: 1/27/2016
Collected: 1/26/2016 11:40

Test Name: EPA 8260B **Reference:** EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	98.2		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	90.5		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	97.6		84.2-118	% Rec	1.0		2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-1 Deep(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-01C **Collected:** 1/26/2016 11:40

Test Name: Hardness **Reference:** Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	620		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	92,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	15,000		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	95,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	2,300		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	3,300		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	24,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	18		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	12		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	18		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: E-1 Deep **Received:** 1/27/2016
Lab ID: 1601416-01D **Collected:** 1/26/2016 11:40

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	450		1.0	mg/L CaCO3	1.0		2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-1 Deep
Lab ID: 1601416-01D

Received: 1/27/2016
Collected: 1/26/2016 11:40

Test Name: Anions by Ion Chromatography
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	ND		0.50	mg/L	1.0		1/27/2016

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	1,000		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	450		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.0		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	600		10	mg/L	1.0		2/1/2016

Client Sample ID: E-1 SH
Lab ID: 1601416-02A

Received: 1/27/2016
Collected: 1/26/2016 11:25

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	5.7		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-1 SH
Lab ID: 1601416-02B

Received: 1/27/2016
Collected: 1/26/2016 11:25

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	96.1		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	101		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	94.9		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: E-1 SH(DISSOLVED)
Lab ID: 1601416-02C

Received: 1/27/2016
Collected: 1/26/2016 11:25

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	200		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-1 SH(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-02C **Collected:** 1/26/2016 11:25

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	25,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	7,700		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	33,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	360		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	12,000		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	24,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	7.4		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	19		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	11		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: E-1 SH **Received:** 1/27/2016
Lab ID: 1601416-02D **Collected:** 1/26/2016 11:25

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	220		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	***1.7***		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-1 SH
Lab ID: 1601416-02D

Received: 1/27/2016
Collected: 1/26/2016 11:25

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	560		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	220		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.8		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	280		10	mg/L	1.0		2/1/2016

Client Sample ID: E-2 Deep
Lab ID: 1601416-03A

Received: 1/27/2016
Collected: 1/26/2016 12:30

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	ND		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-2 Deep
Lab ID: 1601416-03B

Received: 1/27/2016
Collected: 1/26/2016 12:30

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	101		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	103		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	92.8		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: E-2 Deep(DISSOLVED)
Lab ID: 1601416-03C

Received: 1/27/2016
Collected: 1/26/2016 12:30

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	560		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-2 Deep(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-03C **Collected:** 1/26/2016 12:30

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	100,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	51		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	72,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	610		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	3,300		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	15,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	35		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	12		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	5.2		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: E-2 Deep **Received:** 1/27/2016
Lab ID: 1601416-03D **Collected:** 1/26/2016 12:30

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	390		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	ND		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-2 Deep
Lab ID: 1601416-03D

Received: 1/27/2016
Collected: 1/26/2016 12:30

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	830		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	390		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	1.6		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.6		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	520		10	mg/L	1.0		2/1/2016

Client Sample ID: E-3 Deep
Lab ID: 1601416-04A

Received: 1/27/2016
Collected: 1/26/2016 11:00

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	7.6		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-3 Deep
Lab ID: 1601416-04B

Received: 1/27/2016
Collected: 1/26/2016 11:00

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	99.3		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	103		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	90.9		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: E-3 Deep(DISSOLVED)
Lab ID: 1601416-04C

Received: 1/27/2016
Collected: 1/26/2016 11:00

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	270		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-3 Deep(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-04C **Collected:** 1/26/2016 11:00

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	56,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	9,200		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	32,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	1,100		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	8,300		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	17,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	11		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	11		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: E-3 Deep **Received:** 1/27/2016
Lab ID: 1601416-04D **Collected:** 1/26/2016 11:00

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	260		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	ND		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-3 Deep
Lab ID: 1601416-04D

Received: 1/27/2016
Collected: 1/26/2016 11:00

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	540		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	260		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.9		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	320		10	mg/L	1.0		2/1/2016

Client Sample ID: E-3 SH
Lab ID: 1601416-05A

Received: 1/27/2016
Collected: 1/26/2016 10:45

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	5.7		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-3 SH
Lab ID: 1601416-05B

Received: 1/27/2016
Collected: 1/26/2016 10:45

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	101		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	104		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	92.1		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: E-3 SH(DISSOLVED)
Lab ID: 1601416-05C

Received: 1/27/2016
Collected: 1/26/2016 10:45

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	210		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-3 SH(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-05C **Collected:** 1/26/2016 10:45

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	51,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	67		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	21,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	360		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	2,900		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	9,500		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	6.7		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: E-3 SH **Received:** 1/27/2016
Lab ID: 1601416-05D **Collected:** 1/26/2016 10:45

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	180		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	***1.8***		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: E-3 SH
Lab ID: 1601416-05D

Received: 1/27/2016
Collected: 1/26/2016 10:45

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	380		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	180		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	***0.30***		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.1		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	230		10	mg/L	1.0		2/1/2016

Client Sample ID: W-6W Deep
Lab ID: 1601416-06A

Received: 1/27/2016
Collected: 1/26/2016 9:40

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	7.4		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-6W Deep
Lab ID: 1601416-06B

Received: 1/27/2016
Collected: 1/26/2016 9:40

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	102		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	104		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	92.6		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: W-6W Deep(DISSOLVED)
Lab ID: 1601416-06C

Received: 1/27/2016
Collected: 1/26/2016 9:40

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	130		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-6W Deep(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-06C **Collected:** 1/26/2016 9:40

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	13,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	4,900		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	23,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	260		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	940		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	12,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	5.4		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: W-6W Deep **Received:** 1/27/2016
Lab ID: 1601416-06D **Collected:** 1/26/2016 9:40

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	120		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	ND		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-6W Deep
Lab ID: 1601416-06D

Received: 1/27/2016
Collected: 1/26/2016 9:40

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	270		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	120		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.0		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	190		10	mg/L	1.0		2/1/2016

Client Sample ID: W-6E SH
Lab ID: 1601416-07A

Received: 1/27/2016
Collected: 1/26/2016 9:55

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	7.3		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-6E SH
Lab ID: 1601416-07B

Received: 1/27/2016
Collected: 1/26/2016 9:55

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	105		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	108		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	91.3		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: W-6E SH(DISSOLVED)
Lab ID: 1601416-07C

Received: 1/27/2016
Collected: 1/26/2016 9:55

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	140		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-6E SH(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-07C **Collected:** 1/26/2016 9:55

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	27,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	590		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	18,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	81		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	860		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	12,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: W-6E SH **Received:** 1/27/2016
Lab ID: 1601416-07D **Collected:** 1/26/2016 9:55

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	120		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	***1.7***		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-6E SH
Lab ID: 1601416-07D

Received: 1/27/2016
Collected: 1/26/2016 9:55

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	300		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	120		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.2		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	190		10	mg/L	1.0		2/1/2016

Client Sample ID: W-8 SH
Lab ID: 1601416-08A

Received: 1/27/2016
Collected: 1/26/2016 14:30

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	14		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-8 SH
Lab ID: 1601416-08B

Received: 1/27/2016
Collected: 1/26/2016 14:30

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	105		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	104		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	90.5		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: W-8 SH(DISSOLVED)
Lab ID: 1601416-08C

Received: 1/27/2016
Collected: 1/26/2016 14:30

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	67		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-8 SH(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-08C **Collected:** 1/26/2016 14:30

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	11,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	380		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	9,600		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	18		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	560		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	4,900		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: W-8 SH **Received:** 1/27/2016
Lab ID: 1601416-08D **Collected:** 1/26/2016 14:30

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	58		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	***1.4***		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-8 SH
Lab ID: 1601416-08D

Received: 1/27/2016
Collected: 1/26/2016 14:30

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	150		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	58		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.2		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	100		10	mg/L	1.0		2/1/2016

Client Sample ID: W-9 Deep
Lab ID: 1601416-09A

Received: 1/27/2016
Collected: 1/26/2016 13:50

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	10		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-9 Deep
Lab ID: 1601416-09B

Received: 1/27/2016
Collected: 1/26/2016 13:50

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	105		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	106		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	90.2		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: W-9 Deep(DISSOLVED)
Lab ID: 1601416-09C

Received: 1/27/2016
Collected: 1/26/2016 13:50

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	200		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-9 Deep(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-09C **Collected:** 1/26/2016 13:50

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	60,000		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	1,100		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	12,000		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	200		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	1,100		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	12,000		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	6.1		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	5.6		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: W-9 Deep **Received:** 1/27/2016
Lab ID: 1601416-09D **Collected:** 1/26/2016 13:50

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	170		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	ND		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-9 Deep
Lab ID: 1601416-09D

Received: 1/27/2016
Collected: 1/26/2016 13:50

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	380		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	170		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.1		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	240		10	mg/L	1.0		2/1/2016

Client Sample ID: W-9 SH
Lab ID: 1601416-10A

Received: 1/27/2016
Collected: 1/26/2016 14:05

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	14		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-9 SH
Lab ID: 1601416-10B

Received: 1/27/2016
Collected: 1/26/2016 14:05

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/5/2016
Chloromethane	ND		0.50	µg/L	1.0		2/5/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/5/2016
Bromomethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/5/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Chloroform	ND		0.50	µg/L	1.0		2/5/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/5/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Benzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/5/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/5/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
Toluene	ND		0.50	µg/L	1.0		2/5/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/5/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/5/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/5/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/5/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/5/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/5/2016
o-Xylene	ND		0.50	µg/L	1.0		2/5/2016
Bromoform	ND		0.50	µg/L	1.0		2/5/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/5/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/5/2016
Surrogate: 1,2-Dichloroethane-d4	102		67.1-135	% Rec	1.0		2/5/2016
Surrogate: Dibromofluoromethane	108		81.2-125	% Rec	1.0		2/5/2016
Surrogate: Toluene-d8	91.1		84.2-118	% Rec	1.0		2/5/2016

Client Sample ID: W-9 SH(DISSOLVED)
Lab ID: 1601416-10C

Received: 1/27/2016
Collected: 1/26/2016 14:05

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	46		1.0	mg/L CaCO3	1.0	1/27/2016	2/5/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-9 SH(DISSOLVED) **Received:** 1/27/2016
Lab ID: 1601416-10C **Collected:** 1/26/2016 14:05

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	2,600		20	µg/L	1.0	1/27/2016	2/5/2016
Iron	340		15	µg/L	1.0	1/27/2016	2/5/2016
Magnesium	9,500		20	µg/L	1.0	1/27/2016	2/5/2016
Manganese	10		1.0	µg/L	1.0	1/27/2016	2/5/2016
Potassium	960		10	µg/L	1.0	1/27/2016	2/5/2016
Sodium	5,900		20	µg/L	1.0	1/27/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/27/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Nickel	15		5.0	µg/L	1.0	1/27/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/27/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/27/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/27/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	2/2/2016	2/4/2016

Client Sample ID: W-9 SH **Received:** 1/27/2016
Lab ID: 1601416-10D **Collected:** 1/26/2016 14:05

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	45		1.0	mg/L CaCO3	1.0		2/2/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/27/2016
Sulfate	***1.6***		0.50	mg/L	1.0		1/27/2016

Date: 09-Feb-2016
WorkOrder: 1601416

ANALYTICAL REPORT

Client Sample ID: W-9 SH
Lab ID: 1601416-10D

Received: 1/27/2016
Collected: 1/26/2016 14:05

Test Name: Conductivity **Reference:** Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	110		1.0	µS/cm	1.0		2/6/2016

Test Name: Forms of Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	45		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/27/2016

Test Name: pH **Reference:** Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.9		N/A	pH Units	1.0		1/27/2016

Test Name: Total Dissolved Solids **Reference:** mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	91		10	mg/L	1.0		2/1/2016

North Coast Laboratories, Ltd.

Date: 2/9/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Method Blank

Sample ID **MB 020516** Batch ID: **R85378** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/5/2016 3:20:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160205B** SeqNo: **1229152**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	0.50									
Chloromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Bromomethane	ND	0.50									
Chloroethane	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
Methylene chloride	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
1,1-Dichloroethane	ND	0.50									
Chloroform	ND	0.50									
Carbon Tetrachloride	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
Benzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
1,2-Dichloropropane	ND	1.0									
Bromodichloromethane	ND	0.50									
cis-1,3-Dichloropropene	ND	1.0									
Toluene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,3-Dichloropropene	ND	1.0									
1,1,2-Trichloroethane	ND	0.50									
Dibromochloromethane	ND	0.50									
Chlorobenzene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT
Method Blank

Bromoform	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
Surrogate: Dibromofluoromethane	1.12	0.10	1.00	0	112%	81	125	0			
Surrogate: 1,2-Dichloroethane-d4	1.22	0.10	1.00	0	122%	67	135	0			
Surrogate: Toluene-d8	0.905	0.10	1.00	0	90.5%	84	118	0			

Sample ID **MBLK 020116** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228036**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	5.0									

Sample ID **MBLK 012716** Batch ID: **R85259** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/27/2016 6:38:50 PM** Prep Date
Client ID: Run ID: **INIC2_160127A** SeqNo: **1227489**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.10									
Sulfate	ND	0.50									

Sample ID **MBLK2 012716** Batch ID: **R85259** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/28/2016 3:10:11 AM** Prep Date
Client ID: Run ID: **INIC2_160127A** SeqNo: **1227505**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.10									
Sulfate	ND	0.50									

Sample ID **MBLK 012716** Batch ID: **R85261** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/27/2016 6:38:50 PM** Prep Date
Client ID: Run ID: **INIC2_160127B** SeqNo: **1227518**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	ND	0.10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Method Blank

Sample ID **MB-32919** Batch ID: **32919** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 9:33:48 AM** Prep Date **1/27/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228452**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	5.0									
Arsenic	ND	5.0									
Barium	ND	5.0									
Beryllium	ND	1.0									
Cadmium	ND	5.0									
Chromium	ND	5.0									
Cobalt	ND	5.0									
Copper	ND	5.0									
Lead	ND	5.0									
Molybdenum	ND	5.0									
Nickel	ND	5.0									
Selenium	ND	10									
Silver	ND	5.0									
Thallium	ND	5.0									
Vanadium	ND	5.0									
Zinc	ND	10									

Sample ID **MB-32919** Batch ID: **32919** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 11:48:54 AM** Prep Date **1/27/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228978**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	38.41	20									
Iron	ND	15									
Magnesium	ND	20									
Manganese	ND	1.0									
Potassium	ND	10									
Sodium	ND	20									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Method Blank

Sample ID **MB-32932** Batch ID: **32932** Test Code: **MERCW** Units: **µg/L** Analysis Date **2/4/2016 12:58:59 PM** Prep Date **2/2/2016**
Client ID: Run ID: **CVAA1_160204A** SeqNo: **1228594**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1.0									

Sample ID **MBLK** Batch ID: **R85363** Test Code: **TDS** Units: **mg/L** Analysis Date **2/1/2016 1:00:00 PM** Prep Date
Client ID: Run ID: **WC_160201J** SeqNo: **1228929**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 2/9/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **1601416-01BMS** Batch ID: **R85378** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/5/2016 2:23:00 PM** Prep Date

Client ID: **E-1 Deep** Run ID: **ORGCMS2_160205B** SeqNo: **1229151**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	24.85	0.50	20.0	0	124%	25	156	0			
Chloromethane	19.21	0.50	20.0	0	96.0%	27	165	0			
Vinyl chloride	24.24	0.50	20.0	0	121%	53	143	0			
Bromomethane	23.33	0.50	20.0	0	117%	24	166	0			
Chloroethane	23.45	0.50	20.0	0	117%	59	144	0			
Trichlorofluoromethane	23.37	0.50	20.0	0	117%	53	136	0			
1,1-Dichloroethene	22.32	0.50	20.0	0	112%	65	117	0			
Methylene chloride	18.49	0.50	20.0	0	92.5%	54	121	0			
trans-1,2-Dichloroethene	21.09	0.50	20.0	0	105%	71	123	0			
1,1-Dichloroethane	18.96	0.50	20.0	0	94.8%	80	117	0			
Chloroform	20.30	0.50	20.0	0	101%	69	119	0			
Carbon Tetrachloride	23.83	0.50	20.0	0	119%	61	141	0			
1,1,1-Trichloroethane	23.29	0.50	20.0	0	116%	79	119	0			
Benzene	18.90	0.50	20.0	0	94.5%	83	115	0			
1,2-Dichloroethane	18.16	0.50	20.0	0	90.8%	78	117	0			
Trichloroethene	21.72	0.50	20.0	0	109%	72	123	0			
1,2-Dichloropropane	17.84	1.0	20.0	0	89.2%	84	112	0			
Bromodichloromethane	20.41	0.50	20.0	0	102%	64	131	0			
cis-1,3-Dichloropropene	18.77	1.0	20.0	0	93.9%	63	138	0			
Toluene	19.43	0.50	20.0	0.431	95.0%	85	117	0			
Tetrachloroethene	19.95	0.50	20.0	0	99.7%	60	133	0			
trans-1,3-Dichloropropene	18.13	1.0	20.0	0	90.6%	58	129	0			
1,1,2-Trichloroethane	16.36	0.50	20.0	0	81.8%	76	117	0			
Dibromochloromethane	18.86	0.50	20.0	0	94.3%	67	122	0			
Chlorobenzene	19.70	0.50	20.0	0	98.5%	74	115	0			
Ethylbenzene	20.38	0.50	20.0	0	102%	73	117	0			
m,p-Xylene	40.74	0.50	40.0	0.406	101%	77	116	0			
o-Xylene	20.04	0.50	20.0	0.237	99.0%	84	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike

Bromoform	18.62	0.50	20.0	0	93.1%	61	121	0
1,1,2,2-Tetrachloroethane	15.10	0.50	20.0	0	75.5%	62	119	0
1,3-Dichlorobenzene	21.57	0.50	20.0	0	108%	87	113	0
1,4-Dichlorobenzene	20.17	0.50	20.0	0	101%	84	107	0
1,2-Dichlorobenzene	20.16	0.50	20.0	0	101%	84	107	0
Surrogate: Dibromofluoromethane	1.06	0.10	1.00	0	106%	81	125	0
Surrogate: 1,2-Dichloroethane-d4	0.998	0.10	1.00	0	99.8%	67	135	0
Surrogate: Toluene-d8	0.944	0.10	1.00	0	94.4%	84	118	0

Sample ID **1601416-10A MS** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: **W-9 SH** Run ID: **WC_160202F** SeqNo: **1228063**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	63.84	5.0	50.0	14.3	99.0%	70	130	0			

Sample ID **1601416-10A MSD** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: **W-9 SH** Run ID: **WC_160202F** SeqNo: **1228064**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	58.93	5.0	50.0	14.3	89.2%	70	130	63.8	8.00%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **1601416-03CMS** Batch ID: **32919** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 9:59:05 AM** Prep Date **1/27/2016**

Client ID: **E-2 Deep(DISSOLVED)** Run ID: **ICPMS2_160203A** SeqNo: **1228458**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	500.3	25	500	0	100%	70	130	0			
Arsenic	533.8	25	500	35.0	99.7%	70	130	0			
Barium	479.4	25	500	11.5	93.6%	70	130	0			
Beryllium	493.4	5.0	500	0	98.7%	70	130	0			
Cadmium	495.2	25	500	0	99.0%	70	130	0			
Chromium	469.1	25	500	0	93.8%	70	130	0			
Cobalt	462.2	25	500	0.905	92.3%	70	130	0			
Copper	484.3	25	500	0	96.9%	70	130	0			
Lead	491.7	25	500	0.0740	98.3%	70	130	0			
Molybdenum	503.4	25	500	1.01	100%	70	130	0			
Nickel	472.3	25	500	5.16	93.4%	70	130	0			
Selenium	486.2	50	500	2.42	96.8%	70	130	0			
Silver	31.84	25	62.5	0	50.9%	70	130	0			S
Thallium	488.7	25	500	0.329	97.7%	70	130	0			
Vanadium	472.9	25	500	0	94.6%	70	130	0			
Zinc	655.3	50	500	6.88	130%	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID **1601416-03CMSD** Batch ID: **32919** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 10:03:18 AM** Prep Date **1/27/2016**
Client ID: **E-2 Deep(DISSOLVED)** Run ID: **ICPMS2_160203A** SeqNo: **1228459**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	507.4	25	500	0	101%	70	130	500	1.41%	20	
Arsenic	518.6	25	500	35.0	96.7%	70	130	534	2.88%	20	
Barium	484.9	25	500	11.5	94.7%	70	130	479	1.14%	20	
Beryllium	487.7	5.0	500	0	97.5%	70	130	493	1.15%	20	
Cadmium	494.4	25	500	0	98.9%	70	130	495	0.160%	20	
Chromium	464.2	25	500	0	92.8%	70	130	469	1.06%	20	
Cobalt	457.3	25	500	0.905	91.3%	70	130	462	1.06%	20	
Copper	474.5	25	500	0	94.9%	70	130	484	2.04%	20	
Lead	500.1	25	500	0.0740	100%	70	130	492	1.69%	20	
Molybdenum	509.7	25	500	1.01	102%	70	130	503	1.23%	20	
Nickel	458.4	25	500	5.16	90.7%	70	130	472	2.99%	20	
Selenium	495.4	50	500	2.42	98.6%	70	130	486	1.86%	20	
Silver	32.60	25	62.5	0	52.2%	70	130	31.8	2.38%	20	S
Thallium	494.3	25	500	0.329	98.8%	70	130	489	1.14%	20	
Vanadium	459.1	25	500	0	91.8%	70	130	473	2.97%	20	
Zinc	658.4	50	500	6.88	130%	70	130	655	0.475%	20	S

Sample ID **1601416-03CMS** Batch ID: **32919** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:05:41 PM** Prep Date **1/27/2016**
Client ID: **E-2 Deep(DISSOLVED)** Run ID: **_160205A** SeqNo: **1228984**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	470.0	15	500	51.1	83.8%	70	130	0			
Manganese	1,049	1.0	500	610	87.9%	70	130	0			
Potassium	6,741	10	2,500	3,280	138%	70	130	0			S

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID **1601416-03CMSD** Batch ID: **32919** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:08:34 PM** Prep Date **1/27/2016**
Client ID: **E-2 Deep(DISSOLVED)** Run ID: **_160205A** SeqNo: **1228985**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	485.3	15	500	51.1	86.8%	70	130	470	3.20%	20	
Manganese	1,044	1.0	500	610	86.9%	70	130	1,050	0.460%	20	
Potassium	6,772	10	2,500	3,280	140%	70	130	6,740	0.460%	20	S

Sample ID **1601416-08CMS** Batch ID: **32932** Test Code: **MERCW** Units: **µg/L** Analysis Date **2/4/2016 1:15:35 PM** Prep Date **2/2/2016**
Client ID: **W-8 SH(DISSOLVED)** Run ID: **CVAA1_160204A** SeqNo: **1228608**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.250	1.0	5.00	0	105%	70	130	0			

Sample ID **1601416-08CMSD** Batch ID: **32932** Test Code: **MERCW** Units: **µg/L** Analysis Date **2/4/2016 1:16:45 PM** Prep Date **2/2/2016**
Client ID: **W-8 SH(DISSOLVED)** Run ID: **CVAA1_160204A** SeqNo: **1228609**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.290	1.0	5.00	0	106%	70	130	5.25	0.759%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 2/9/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-16037** Batch ID: **R85378** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/5/2016 12:31:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160205B** SeqNo: **1229149**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	24.85	0.50	20.0	0	124%	25	156	0			
Chloromethane	18.08	0.50	20.0	0	90.4%	27	165	0			
Vinyl chloride	20.48	0.50	20.0	0	102%	53	143	0			
Bromomethane	24.14	0.50	20.0	0	121%	24	166	0			
Chloroethane	22.27	0.50	20.0	0	111%	59	144	0			
Trichlorofluoromethane	24.74	0.50	20.0	0	124%	53	136	0			
1,1-Dichloroethene	20.79	0.50	20.0	0	104%	65	117	0			
Methylene chloride	18.38	0.50	20.0	0	91.9%	54	121	0			
trans-1,2-Dichloroethene	20.66	0.50	20.0	0	103%	71	123	0			
1,1-Dichloroethane	19.95	0.50	20.0	0	99.8%	80	117	0			
Chloroform	20.51	0.50	20.0	0	103%	69	119	0			
Carbon Tetrachloride	22.15	0.50	20.0	0	111%	61	141	0			
1,1,1-Trichloroethane	22.25	0.50	20.0	0	111%	79	119	0			
Benzene	18.85	0.50	20.0	0	94.3%	83	115	0			
1,2-Dichloroethane	18.46	0.50	20.0	0	92.3%	78	117	0			
Trichloroethene	21.65	0.50	20.0	0	108%	72	123	0			
1,2-Dichloropropane	18.44	1.0	20.0	0	92.2%	84	112	0			
Bromodichloromethane	20.20	0.50	20.0	0	101%	64	131	0			
cis-1,3-Dichloropropene	19.35	1.0	20.0	0	96.7%	63	138	0			
Toluene	20.29	0.50	20.0	0	101%	85	117	0			
Tetrachloroethene	20.64	0.50	20.0	0	103%	60	133	0			
trans-1,3-Dichloropropene	18.02	1.0	20.0	0	90.1%	58	129	0			
1,1,2-Trichloroethane	16.10	0.50	20.0	0	80.5%	76	117	0			
Dibromochloromethane	20.18	0.50	20.0	0	101%	67	122	0			
Chlorobenzene	20.74	0.50	20.0	0	104%	74	115	0			
Ethylbenzene	21.46	0.50	20.0	0	107%	73	117	0			
m,p-Xylene	44.47	0.50	40.0	0	111%	77	116	0			
o-Xylene	21.58	0.50	20.0	0	108%	84	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike

Bromoform	19.18	0.50	20.0	0	95.9%	61	121	0
1,1,2,2-Tetrachloroethane	14.94	0.50	20.0	0	74.7%	62	119	0
1,3-Dichlorobenzene	21.71	0.50	20.0	0	109%	87	113	0
1,4-Dichlorobenzene	20.35	0.50	20.0	0	102%	84	107	0
1,2-Dichlorobenzene	19.13	0.50	20.0	0	95.6%	84	107	0
Surrogate: Dibromofluoromethane	1.04	0.10	1.00	0	104%	81	125	0
Surrogate: 1,2-Dichloroethane-d4	0.985	0.10	1.00	0	98.5%	67	135	0
Surrogate: Toluene-d8	0.953	0.10	1.00	0	95.3%	84	118	0

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-16037** Batch ID: **R85378** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/5/2016 12:59:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160205B** SeqNo: **1229150**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	23.73	0.50	20.0	0	119%	25	156	24.8	4.61%	30	
Chloromethane	17.60	0.50	20.0	0	88.0%	27	165	18.1	2.69%	30	
Vinyl chloride	19.76	0.50	20.0	0	98.8%	53	143	20.5	3.57%	30	
Bromomethane	24.38	0.50	20.0	0	122%	24	166	24.1	0.967%	30	
Chloroethane	21.99	0.50	20.0	0	110%	59	144	22.3	1.28%	30	
Trichlorofluoromethane	24.37	0.50	20.0	0	122%	53	136	24.7	1.49%	30	
1,1-Dichloroethene	19.85	0.50	20.0	0	99.3%	65	117	20.8	4.59%	30	
Methylene chloride	18.44	0.50	20.0	0	92.2%	54	121	18.4	0.337%	30	
trans-1,2-Dichloroethene	20.12	0.50	20.0	0	101%	71	123	20.7	2.64%	30	
1,1-Dichloroethane	19.17	0.50	20.0	0	95.8%	80	117	20.0	4.01%	30	
Chloroform	20.34	0.50	20.0	0	102%	69	119	20.5	0.834%	30	
Carbon Tetrachloride	21.85	0.50	20.0	0	109%	61	141	22.2	1.38%	30	
1,1,1-Trichloroethane	21.51	0.50	20.0	0	108%	79	119	22.2	3.38%	30	
Benzene	18.80	0.50	20.0	0	94.0%	83	115	18.8	0.273%	30	
1,2-Dichloroethane	19.28	0.50	20.0	0	96.4%	78	117	18.5	4.38%	30	
Trichloroethene	21.42	0.50	20.0	0	107%	72	123	21.6	1.07%	30	
1,2-Dichloropropane	18.03	1.0	20.0	0	90.2%	84	112	18.4	2.26%	30	
Bromodichloromethane	20.60	0.50	20.0	0	103%	64	131	20.2	1.95%	30	
cis-1,3-Dichloropropene	19.33	1.0	20.0	0	96.7%	63	138	19.4	0.0920%	30	
Toluene	20.28	0.50	20.0	0	101%	85	117	20.3	0.0182%	30	
Tetrachloroethene	20.46	0.50	20.0	0	102%	60	133	20.6	0.873%	30	
trans-1,3-Dichloropropene	18.85	1.0	20.0	0	94.2%	58	129	18.0	4.47%	30	
1,1,2-Trichloroethane	17.27	0.50	20.0	0	86.4%	76	117	16.1	7.00%	30	
Dibromochloromethane	21.52	0.50	20.0	0	108%	67	122	20.2	6.45%	30	
Chlorobenzene	20.97	0.50	20.0	0	105%	74	115	20.7	1.09%	30	
Ethylbenzene	21.77	0.50	20.0	0	109%	73	117	21.5	1.43%	30	
m,p-Xylene	44.14	0.50	40.0	0	110%	77	116	44.5	0.743%	30	
o-Xylene	21.70	0.50	20.0	0	108%	84	122	21.6	0.534%	30	
Bromoform	20.40	0.50	20.0	0	102%	61	121	19.2	6.15%	30	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

1,1,2,2-Tetrachloroethane	16.38	0.50	20.0	0	81.9%	62	119	14.9	9.15%	30
1,3-Dichlorobenzene	22.19	0.50	20.0	0	111%	87	113	21.7	2.19%	30
1,4-Dichlorobenzene	20.36	0.50	20.0	0	102%	84	107	20.4	0.0531%	30
1,2-Dichlorobenzene	20.49	0.50	20.0	0	102%	84	107	19.1	6.87%	30
Surrogate: Dibromofluoromethane	1.03	0.10	1.00	0	103%	81	125	1.04	0.988%	30
Surrogate: 1,2-Dichloroethane-d4	0.992	0.10	1.00	0	99.2%	67	135	0.985	0.708%	30
Surrogate: Toluene-d8	0.959	0.10	1.00	0	95.9%	84	118	0.953	0.649%	30

Sample ID **LCS WL-02011601** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228037**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	49.62	5.0	50.0	0	99.2%	85	115	0			

Sample ID **LCSD WL-020116** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228038**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	52.48	5.0	50.0	0	105%	85	115	49.6	5.62%	20	

Sample ID **LCS WL-012716-0** Batch ID: **R85259** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/27/2016 6:56:28 PM** Prep Date
Client ID: Run ID: **INIC2_160127A** SeqNo: **1227490**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.9871	0.10	1.00	0	98.7%	90	110	0			
Sulfate	10.25	0.50	10.0	0	102%	90	110	0			

Sample ID **LCSD WL-012716-** Batch ID: **R85259** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/27/2016 7:14:06 PM** Prep Date
Client ID: Run ID: **INIC2_160127A** SeqNo: **1227491**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.9949	0.10	1.00	0	99.5%	90	110	0.987	0.779%	10	
Sulfate	10.32	0.50	10.0	0	103%	90	110	10.2	0.697%	10	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS WL-012716-0** Batch ID: **R85261** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/27/2016 6:56:28 PM** Prep Date
Client ID: Run ID: **INIC2_160127B** SeqNo: **1227519**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.019	0.10	1.00	0	102%	90	110	0			

Sample ID **LCSD WL-012716-** Batch ID: **R85261** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/27/2016 7:14:06 PM** Prep Date
Client ID: Run ID: **INIC2_160127B** SeqNo: **1227520**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.020	0.10	1.00	0	102%	90	110	1.05	2.64%	10	

Sample ID **LCS-32919** Batch ID: **32919** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 9:38:01 AM** Prep Date **1/27/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228453**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	507.4	25	500	0	101%	85	115	0			
Arsenic	508.3	25	500	0	102%	85	115	0			
Barium	479.0	25	500	0	95.8%	85	115	0			
Beryllium	517.3	5.0	500	0	103%	85	115	0			
Cadmium	494.9	25	500	0	99.0%	85	115	0			
Chromium	507.5	25	500	0	101%	85	115	0			
Cobalt	497.3	25	500	0	99.5%	85	115	0			
Copper	489.6	25	500	0	97.9%	85	115	0			
Lead	500.8	25	500	0	100%	85	115	0			
Molybdenum	529.0	25	500	0.350	106%	85	115	0			
Nickel	506.8	25	500	0	101%	85	115	0			
Selenium	515.5	50	500	0	103%	85	115	0			
Silver	62.41	25	62.5	0	99.8%	85	115	0			
Thallium	496.4	25	500	0	99.3%	85	115	0			
Vanadium	508.9	25	500	0	102%	85	115	0			
Zinc	476.7	50	500	0	95.3%	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-32919** Batch ID: **32919** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 9:42:14 AM** Prep Date **1/27/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228454**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	514.7	25	500	0	103%	85	115	507	1.42%	20	
Arsenic	518.7	25	500	0	104%	85	115	508	2.02%	20	
Barium	473.9	25	500	0	94.8%	85	115	479	1.07%	20	
Beryllium	506.4	5.0	500	0	101%	85	115	517	2.13%	20	
Cadmium	499.2	25	500	0	99.8%	85	115	495	0.873%	20	
Chromium	509.0	25	500	0	102%	85	115	508	0.299%	20	
Cobalt	511.9	25	500	0	102%	85	115	497	2.91%	20	
Copper	514.5	25	500	0	103%	85	115	490	4.95%	20	
Lead	500.3	25	500	0	100%	85	115	501	0.0863%	20	
Molybdenum	530.4	25	500	0.350	106%	85	115	529	0.274%	20	
Nickel	509.6	25	500	0	102%	85	115	507	0.563%	20	
Selenium	509.8	50	500	0	102%	85	115	516	1.10%	20	
Silver	62.38	25	62.5	0	99.8%	85	115	62.4	0.0417%	20	
Thallium	497.3	25	500	0	99.5%	85	115	496	0.167%	20	
Vanadium	509.8	25	500	0	102%	85	115	509	0.177%	20	
Zinc	498.2	50	500	0	99.6%	85	115	477	4.42%	20	

Sample ID **LCS-32919** Batch ID: **32919** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 11:51:08 AM** Prep Date **1/27/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228979**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	550.4	20	500	0	110%	85	115	0			
Iron	517.9	15	500	0	104%	85	115	0			
Magnesium	494.6	20	500	0	98.9%	85	115	0			
Manganese	508.8	1.0	500	0	102%	85	115	0			
Potassium	2,402	10	2,500	0	96.1%	85	115	0			
Sodium	489.1	20	500	0	97.8%	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601416
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-32919** Batch ID: **32919** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 11:53:49 AM** Prep Date **1/27/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228980**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	486.1	20	500	0	97.2%	85	115	550	12.4%	20	
Iron	516.1	15	500	0	103%	85	115	518	0.350%	20	
Magnesium	499.9	20	500	0	100%	85	115	495	1.06%	20	
Manganese	508.0	1.0	500	0	102%	85	115	509	0.176%	20	
Potassium	2,422	10	2,500	0	96.9%	85	115	2,400	0.792%	20	
Sodium	491.0	20	500	0	98.2%	85	115	489	0.391%	20	

Sample ID **LCS-32932** Batch ID: **32932** Test Code: **MERCW** Units: **µg/L** Analysis Date **2/4/2016 1:00:09 PM** Prep Date **2/2/2016**
Client ID: Run ID: **CVAA1_160204A** SeqNo: **1228595**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.820	1.0	5.00	0	96.4%	85	115	0			

Sample ID **LCSD-32932** Batch ID: **32932** Test Code: **MERCW** Units: **µg/L** Analysis Date **2/4/2016 1:01:19 PM** Prep Date **2/2/2016**
Client ID: Run ID: **CVAA1_160204A** SeqNo: **1228596**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.830	1.0	5.00	0	96.6%	85	115	4.82	0.207%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

P. 1 of 1

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 1601416

Attention: Trudi Blasi
Results & Invoice to: Del Norte Solid Waste Management
Address: 1700 State Street
Crescent City, CA 95531
Phone: 707-465-1100
Copies of Report to: Gina Morrison, NCRWQCB
Hoawa Mova, DNC Env. Health
Sampler (Sign & Print): Kayleen Warner

TAT: ☒ STD (2-3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:
☐ State Forms
☒ Geotracker ☐ SWAMP ☐ Other EDD:
☒ Final Report PDF ☐ FAX By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other
PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number:
Project Name: Landfill Groundwater
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	COD	EPA 8260 hist II	Diss ICAP mets	Ne-hard Minerals	SPECIAL INSTRUCTIONS	SAMPLE CONDITION
	E-1 Deep	↑	11:40	↑	X	X	X	X		Temperature 3.4 °C
	E-1 Shallow	26JAN16	11:25	GW	X	X	X	X	meter Not working	
	E-2 Deep		12:30		X	X	X	X		Received On Ice? Y / N
	E-3 Deep		11:00		X	X	X	X		Samples Intact? Y / N
	E-3 Shallow		10:45		X	X	X	X	Filter all	Preserved? Y / N
	W-6W Deep		9:40		X	X	X	X	Samples before	
	W-6E Shallow		9:55		X	X	X	X	Testing for metals	Preserved @ NCL?
	W-8 Shallow		2:30		X	X	X	X		Y / N / NA
	W-9 Deep		1:50		X	X	X	X		
	W-9 Shallow	↓	2:05	↓	X	X	X	X		

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Kayleen Warner Kayleen Warner	1/27/15	8:30am	
		D. Auch	8:45 1-27

SAMPLE DISPOSAL
☒ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Fed-Ex ~~Hand~~ Efficiency

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

SAMPLE CONTAINER ORDER FORM

CLIENT NAME: Del Norte SWA	**DATE OF REQUEST:** 12/29/15
ADDRESS (Street not PO Box) : 1700 State Street	
Crescent City, CA 95531	
CONTACT PERSON: Tedd Ward	**PHONE NUMBER:** 465-1100
SHIP BY: 1/7/16	**PROJECT NAME:** Landfill Groundwater

__X__ **TEMP BLANK**
_____ **SAMPLING INSTRUCTIONS**

Deliver		Pickup		Cooler	X	Box	
Ship	X	UPS		Airborne		Fed X	
DW Samples		Chlorinated Samples		US Mail		Fed X Ground	

SPECIAL INSTRUCTIONS:
DO NOT USE BLUE ICE – Send plastic "ICE" bottles
Label outside of coolers – "Groundwater"
Bag by complete sets [Each set = (1)125 mL amber + (3)pres.VOA +(2)500 mL plastic
Metals = ICPMS (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Th, V, Zn), ICP (Ca, Fe, Mg, Mn, K, Na), Hg, and hardness
DNSWAGWMINS = DNSWA Groundwater Minerals = alkalinity, anions, conductivity, fluoride, sulfate, nitrate, pH and TDS

ANALYSIS	# OF Samples	Bottle Type/ Sample Volume	Number of Containers	Preservation
COD	17	125 mL amber glass	17	H2SO4
EPA 8260 List 11	17	(3) 40 mL amber VOA	51 + **TB**	HCl
Diss ICAP Mets + Na & Hard.	17	500 mL plastic	17	-
Minerals	17	500 mL plastic	17	-

Requested Taken By	rgm	Prepared & Shipped By		Date Shipped		Method of Shipment	

NORTH COAST LABORATORIES LTD.

February 10, 2016

Del Norte Solid Waste Authority
1700 State Street
Crescent City, CA 95531

Order No.: 1601454
Invoice No.: 125770
PO No.:

Attn: Tedd Ward

ELAP No.1247-Expires July 2016

RE: Landfill Groundwater

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	W-1W SH
01B	W-1W SH
01C	W-1W SH(DISSOLVED)
01D	W-1W SH
02A	W-2 Deep
02B	W-2 Deep
02C	W-2 Deep(DISSOLVED)
02D	W-2 Deep
03A	W-3S SH
03B	W-3S SH
03C	W-3S SH(DISSOLVED)
03D	W-3S SH
04A	W-10 SH
04B	W-10 SH
04C	W-10 SH(DISSOLVED)
04D	W-10 SH
05A	SM-7 SH
05B	SM-7 SH
05C	SM-7 SH(DISSOLVED)
05D	SM-7 SH
06A	SM-6 SH
06B	SM-6 SH
06C	SM-6 SH(DISSOLVED)
06D	SM-6 SH

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Roxanne Moore, Project Manager

Date: 10-Feb-2016
WorkOrder: 1601454

CASE NARRATIVE

Samples for dissolved metals analysis must be filtered within 15 minutes of collection. Therefore, any samples that were filtered by the laboratory were filtered past the official holding time.

Samples for pH, residual chlorine and dissolved oxygen analysis must be analyzed within 15 minutes of collection. Therefore, any samples requiring these analyses were analyzed past the official holding time.

Calcium/Magnesium/Sodium:
The matrix spike recoveries were not evaluated due to the large amount of analyte in Sample SM-7 SH(DISSOLVED).

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-1W SH
Lab ID: 1601454-01A

Received: 1/28/2016
Collected: 1/27/2016 11:50

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	ND		5.0	mg/L	1.0	2/1/2016	2/2/2016

Client Sample ID: W-1W SH
Lab ID: 1601454-01B

Received: 1/28/2016
Collected: 1/27/2016 11:50

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/8/2016
Chloromethane	ND		0.50	µg/L	1.0		2/8/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/8/2016
Bromomethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/8/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroform	ND		0.50	µg/L	1.0		2/8/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/8/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Benzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/8/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/8/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
Toluene	ND		0.50	µg/L	1.0		2/8/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/8/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/8/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/8/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/8/2016
o-Xylene	ND		0.50	µg/L	1.0		2/8/2016
Bromoform	ND		0.50	µg/L	1.0		2/8/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/8/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Surrogate: 1,2-Dichloroethane-d4	108		67.1-135	% Rec	1.0		2/8/2016
Surrogate: Dibromofluoromethane	106		81.2-125	% Rec	1.0		2/8/2016
Surrogate: Toluene-d8	92.6		84.2-118	% Rec	1.0		2/8/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-1W SH(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601454-01C **Collected:** 1/27/2016 11:50

Test Name: Hardness **Reference:** Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	67		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	12,000		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	ND		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	9,100		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	4.5		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	440		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	5,900		20	µg/L	1.0	1/28/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: W-1W SH **Received:** 1/28/2016
Lab ID: 1601454-01D **Collected:** 1/27/2016 11:50

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	52		1.0	mg/L CaCO3	1.0		2/4/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-1W SH
Lab ID: 1601454-01D

Received: 1/28/2016
Collected: 1/27/2016 11:50

Test Name: Anions by Ion Chromatography
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/29/2016
Sulfate	***1.9***		0.50	mg/L	1.0		1/29/2016

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	130		1.0	µS/cm	1.0		2/8/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	52		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	***0.20***		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.2		N/A	pH Units	1.0		1/28/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	110		10	mg/L	1.0		2/1/2016

Client Sample ID: W-2 Deep
Lab ID: 1601454-02A

Received: 1/28/2016
Collected: 1/27/2016 9:45

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	12		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-2 Deep
Lab ID: 1601454-02B

Received: 1/28/2016
Collected: 1/27/2016 9:45

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/8/2016
Chloromethane	ND		0.50	µg/L	1.0		2/8/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/8/2016
Bromomethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/8/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroform	ND		0.50	µg/L	1.0		2/8/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/8/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Benzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/8/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/8/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
Toluene	ND		0.50	µg/L	1.0		2/8/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/8/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/8/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/8/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/8/2016
o-Xylene	ND		0.50	µg/L	1.0		2/8/2016
Bromoform	ND		0.50	µg/L	1.0		2/8/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/8/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Surrogate: 1,2-Dichloroethane-d4	106		67.1-135	% Rec	1.0		2/8/2016
Surrogate: Dibromofluoromethane	106		81.2-125	% Rec	1.0		2/8/2016
Surrogate: Toluene-d8	90.8		84.2-118	% Rec	1.0		2/8/2016

Client Sample ID: W-2 Deep(DISSOLVED)
Lab ID: 1601454-02C

Received: 1/28/2016
Collected: 1/27/2016 9:45

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	790		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-2 Deep(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601454-02C **Collected:** 1/27/2016 9:45

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	130,000		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	9,900		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	120,000		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	7,200		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	800		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	16,000		20	µg/L	1.0	1/28/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	34		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	12		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	7.4		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	21		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	12		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: W-2 Deep **Received:** 1/28/2016
Lab ID: 1601454-02D **Collected:** 1/27/2016 9:45

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	420		1.0	mg/L CaCO3	1.0		2/4/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/29/2016
Sulfate	ND		0.50	mg/L	1.0		1/29/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-2 Deep
Lab ID: 1601454-02D

Received: 1/28/2016
Collected: 1/27/2016 9:45

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	1,200		1.0	µS/cm	1.0		2/8/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	420		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.7		N/A	pH Units	1.0		1/28/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	870		10	mg/L	1.0		2/1/2016

Client Sample ID: W-3S SH
Lab ID: 1601454-03A

Received: 1/28/2016
Collected: 1/27/2016 11:20

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	12		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-3S SH
Lab ID: 1601454-03B

Received: 1/28/2016
Collected: 1/27/2016 11:20

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/8/2016
Chloromethane	ND		0.50	µg/L	1.0		2/8/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/8/2016
Bromomethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/8/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroform	ND		0.50	µg/L	1.0		2/8/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/8/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Benzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/8/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/8/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
Toluene	ND		0.50	µg/L	1.0		2/8/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/8/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/8/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/8/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/8/2016
o-Xylene	ND		0.50	µg/L	1.0		2/8/2016
Bromoform	ND		0.50	µg/L	1.0		2/8/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/8/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Surrogate: 1,2-Dichloroethane-d4	106		67.1-135	% Rec	1.0		2/8/2016
Surrogate: Dibromofluoromethane	109		81.2-125	% Rec	1.0		2/8/2016
Surrogate: Toluene-d8	91.6		84.2-118	% Rec	1.0		2/8/2016

Client Sample ID: W-3S SH(DISSOLVED)
Lab ID: 1601454-03C

Received: 1/28/2016
Collected: 1/27/2016 11:20

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	65		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-3S SH(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601454-03C **Collected:** 1/27/2016 11:20

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	8,400		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	840		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	11,000		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	190		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	490		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	5,900		20	µg/L	1.0	1/28/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	5.3		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	17		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: W-3S SH **Received:** 1/28/2016
Lab ID: 1601454-03D **Collected:** 1/27/2016 11:20

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	52		1.0	mg/L CaCO3	1.0		2/4/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/29/2016
Sulfate	***3.0***		0.50	mg/L	1.0		1/29/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-3S SH
Lab ID: 1601454-03D

Received: 1/28/2016
Collected: 1/27/2016 11:20

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	130		1.0	µS/cm	1.0		2/8/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	52		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.8		N/A	pH Units	1.0		1/28/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	110		10	mg/L	1.0		2/1/2016

Client Sample ID: W-10 SH
Lab ID: 1601454-04A

Received: 1/28/2016
Collected: 1/27/2016 10:40

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	9.2		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-10 SH
Lab ID: 1601454-04B

Received: 1/28/2016
Collected: 1/27/2016 10:40

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/8/2016
Chloromethane	ND		0.50	µg/L	1.0		2/8/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/8/2016
Bromomethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/8/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroform	ND		0.50	µg/L	1.0		2/8/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/8/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Benzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/8/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/8/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
Toluene	ND		0.50	µg/L	1.0		2/8/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/8/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/8/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/8/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/8/2016
o-Xylene	ND		0.50	µg/L	1.0		2/8/2016
Bromoform	ND		0.50	µg/L	1.0		2/8/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/8/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Surrogate: 1,2-Dichloroethane-d4	106		67.1-135	% Rec	1.0		2/8/2016
Surrogate: Dibromofluoromethane	108		81.2-125	% Rec	1.0		2/8/2016
Surrogate: Toluene-d8	91.6		84.2-118	% Rec	1.0		2/8/2016

Client Sample ID: W-10 SH(DISSOLVED)
Lab ID: 1601454-04C

Received: 1/28/2016
Collected: 1/27/2016 10:40

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	43		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-10 SH(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601454-04C **Collected:** 1/27/2016 10:40

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	9,800		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	65		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	4,400		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	5.8		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	280		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	2,700		20	µg/L	1.0	1/28/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: W-10 SH **Received:** 1/28/2016
Lab ID: 1601454-04D **Collected:** 1/27/2016 10:40

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	37		1.0	mg/L CaCO3	1.0		2/4/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/29/2016
Sulfate	***1.2***		0.50	mg/L	1.0		1/29/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: W-10 SH
Lab ID: 1601454-04D

Received: 1/28/2016
Collected: 1/27/2016 10:40

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	95		1.0	µS/cm	1.0		2/8/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	37		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	***0.11***		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.7		N/A	pH Units	1.0		1/28/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	84		10	mg/L	1.0		2/1/2016

Client Sample ID: SM-7 SH
Lab ID: 1601454-05A

Received: 1/28/2016
Collected: 1/27/2016 11:40

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	7.9		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: SM-7 SH
Lab ID: 1601454-05B

Received: 1/28/2016
Collected: 1/27/2016 11:40

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/8/2016
Chloromethane	ND		0.50	µg/L	1.0		2/8/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/8/2016
Bromomethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/8/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroform	ND		0.50	µg/L	1.0		2/8/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/8/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Benzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/8/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/8/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
Toluene	ND		0.50	µg/L	1.0		2/8/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/8/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/8/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/8/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/8/2016
o-Xylene	ND		0.50	µg/L	1.0		2/8/2016
Bromoform	ND		0.50	µg/L	1.0		2/8/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/8/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Surrogate: 1,2-Dichloroethane-d4	103		67.1-135	% Rec	1.0		2/8/2016
Surrogate: Dibromofluoromethane	107		81.2-125	% Rec	1.0		2/8/2016
Surrogate: Toluene-d8	91.9		84.2-118	% Rec	1.0		2/8/2016

Client Sample ID: SM-7 SH(DISSOLVED)
Lab ID: 1601454-05C

Received: 1/28/2016
Collected: 1/27/2016 11:40

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	56		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: SM-7 SH(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601454-05C **Collected:** 1/27/2016 11:40

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	4,900		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	110		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	11,000		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	45		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	850		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	10,000		20	µg/L	1.0	1/28/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	25		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: SM-7 SH **Received:** 1/28/2016
Lab ID: 1601454-05D **Collected:** 1/27/2016 11:40

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	42		1.0	mg/L CaCO3	1.0		2/4/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/29/2016
Sulfate	***2.5***		0.50	mg/L	1.0		1/29/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: SM-7 SH
Lab ID: 1601454-05D

Received: 1/28/2016
Collected: 1/27/2016 11:40

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	150		1.0	µS/cm	1.0		2/8/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	42		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.6		N/A	pH Units	1.0		1/28/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	110		10	mg/L	1.0		2/1/2016

Client Sample ID: SM-6 SH
Lab ID: 1601454-06A

Received: 1/28/2016
Collected: 1/27/2016 13:00

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	38		5.0	mg/L	1.0	2/1/2016	2/2/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: SM-6 SH
Lab ID: 1601454-06B

Received: 1/28/2016
Collected: 1/27/2016 13:00

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		2/8/2016
Chloromethane	ND		0.50	µg/L	1.0		2/8/2016
Vinyl chloride	ND		0.50	µg/L	1.0		2/8/2016
Bromomethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
Methylene chloride	ND		0.50	µg/L	1.0		2/8/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Chloroform	ND		0.50	µg/L	1.0		2/8/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		2/8/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Benzene	***24***		0.50	µg/L	1.0		2/8/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Trichloroethene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		2/8/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		2/8/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
Toluene	***0.90***		0.50	µg/L	1.0		2/8/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		2/8/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		2/8/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		2/8/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		2/8/2016
Chlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Ethylbenzene	ND		0.50	µg/L	1.0		2/8/2016
m,p-Xylene	ND		0.50	µg/L	1.0		2/8/2016
o-Xylene	ND		0.50	µg/L	1.0		2/8/2016
Bromoform	ND		0.50	µg/L	1.0		2/8/2016
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1.0		2/8/2016
1,3-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,4-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
1,2-Dichlorobenzene	ND		0.50	µg/L	1.0		2/8/2016
Surrogate: 1,2-Dichloroethane-d4	103		67.1-135	% Rec	1.0		2/8/2016
Surrogate: Dibromofluoromethane	108		81.2-125	% Rec	1.0		2/8/2016
Surrogate: Toluene-d8	91.2		84.2-118	% Rec	1.0		2/8/2016

Client Sample ID: SM-6 SH(DISSOLVED)
Lab ID: 1601454-06C

Received: 1/28/2016
Collected: 1/27/2016 13:00

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	35		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: SM-6 SH(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601454-06C **Collected:** 1/27/2016 13:00

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	7,900		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	53		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	3,600		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	29		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	830		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	2,300		20	µg/L	1.0	1/28/2016	2/5/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	9.3		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	5.9		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	600		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: SM-6 SH **Received:** 1/28/2016
Lab ID: 1601454-06D **Collected:** 1/27/2016 13:00

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	39		1.0	mg/L CaCO3	1.0		2/4/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Fluoride	ND		0.10	mg/L	1.0		1/29/2016
Sulfate	***1.1***		0.50	mg/L	1.0		1/29/2016

Date: 10-Feb-2016
WorkOrder: 1601454

ANALYTICAL REPORT

Client Sample ID: SM-6 SH
Lab ID: 1601454-06D

Received: 1/28/2016
Collected: 1/27/2016 13:00

Test Name: Conductivity
Reference: Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	89		1.0	µS/cm	1.0		2/8/2016

Test Name: Forms of Alkalinity
Reference: Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	39		1.0	mg/L CaCO3	1.0		2/5/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		2/5/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		2/5/2016

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	***0.20***		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.6		N/A	pH Units	1.0		1/28/2016

Test Name: Total Dissolved Solids
Reference: mg/L

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	61		10	mg/L	1.0		2/1/2016

North Coast Laboratories, Ltd.

Date: 2/10/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Method Blank

Sample ID **MB 020816** Batch ID: **R85391** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/8/2016 4:05:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160208B** SeqNo: **1229345**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	0.50									
Chloromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Bromomethane	ND	0.50									
Chloroethane	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
Methylene chloride	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
1,1-Dichloroethane	ND	0.50									
Chloroform	ND	0.50									
Carbon Tetrachloride	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
Benzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
1,2-Dichloropropane	ND	1.0									
Bromodichloromethane	ND	0.50									
cis-1,3-Dichloropropene	ND	1.0									
Toluene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,3-Dichloropropene	ND	1.0									
1,1,2-Trichloroethane	ND	0.50									
Dibromochloromethane	ND	0.50									
Chlorobenzene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT
Method Blank

Bromoform	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
Surrogate: Dibromofluoromethane	0.936	0.10	1.00	0	93.6%	81	125	0			
Surrogate: 1,2-Dichloroethane-d4	0.910	0.10	1.00	0	91.0%	67	135	0			
Surrogate: Toluene-d8	0.982	0.10	1.00	0	98.2%	84	118	0			

Sample ID **MBLK 020116** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228036**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	5.0									

Sample ID **MBLK 012816** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/28/2016 6:54:50 PM** Prep Date
Client ID: Run ID: **INIC2_160128A** SeqNo: **1228335**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.10									
Sulfate	ND	0.50									

Sample ID **MBLK2 012816** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/29/2016 3:26:11 AM** Prep Date
Client ID: Run ID: **INIC2_160128A** SeqNo: **1228345**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.10									
Sulfate	ND	0.50									

Sample ID **MBLK 012816** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/28/2016 6:54:50 PM** Prep Date
Client ID: Run ID: **INIC2_160128B** SeqNo: **1228357**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	ND	0.10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Method Blank

Sample ID **MBLK2 012816** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 3:26:11 AM** Prep Date
Client ID: Run ID: **INIC2_160128B** SeqNo: **1228379**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	ND	0.10									

Sample ID **MB-32928** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 10:53:56 AM** Prep Date **1/28/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228471**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	5.0									
Arsenic	ND	5.0									
Barium	ND	5.0									
Beryllium	ND	1.0									
Cadmium	ND	5.0									
Chromium	ND	5.0									
Cobalt	ND	5.0									
Copper	ND	5.0									
Lead	ND	5.0									
Molybdenum	ND	5.0									
Nickel	ND	5.0									
Selenium	ND	10									
Silver	ND	5.0									
Thallium	ND	5.0									
Vanadium	ND	5.0									
Zinc	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Method Blank

Sample ID **MB-32928** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:35:40 PM** Prep Date **1/28/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228995**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	ND	20									
Iron	ND	15									
Magnesium	ND	20									
Manganese	ND	1.0									
Potassium	ND	10									
Sodium	ND	20									

Sample ID **MBLK** Batch ID: **R85364** Test Code: **TDS** Units: **mg/L** Analysis Date **2/1/2016 1:00:00 PM** Prep Date
Client ID: Run ID: **WC_160201K** SeqNo: **1229013**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 2/10/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **1601454-01BMS** Batch ID: **R85391** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/8/2016 3:03:00 PM** Prep Date

Client ID: **W-1W SH** Run ID: **ORGCMS2_160208B** SeqNo: **1229344**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	14.14	0.50	20.0	0	70.7%	25	156	0			
Chloromethane	18.77	0.50	20.0	0	93.8%	27	165	0			
Vinyl chloride	22.41	0.50	20.0	0	112%	53	143	0			
Bromomethane	19.41	0.50	20.0	0	97.0%	24	166	0			
Chloroethane	20.58	0.50	20.0	0	103%	59	144	0			
Trichlorofluoromethane	19.15	0.50	20.0	0	95.7%	53	136	0			
1,1-Dichloroethene	19.07	0.50	20.0	0	95.3%	65	117	0			
Methylene chloride	18.37	0.50	20.0	0	91.8%	54	121	0			
trans-1,2-Dichloroethene	19.93	0.50	20.0	0	99.6%	71	123	0			
1,1-Dichloroethane	18.09	0.50	20.0	0	90.4%	80	117	0			
Chloroform	19.34	0.50	20.0	0	96.7%	69	119	0			
Carbon Tetrachloride	22.70	0.50	20.0	0	113%	61	141	0			
1,1,1-Trichloroethane	21.93	0.50	20.0	0	110%	79	119	0			
Benzene	17.75	0.50	20.0	0	88.8%	83	115	0			
1,2-Dichloroethane	18.73	0.50	20.0	0	93.6%	78	117	0			
Trichloroethene	20.20	0.50	20.0	0	101%	72	123	0			
1,2-Dichloropropane	17.25	1.0	20.0	0	86.2%	84	112	0			
Bromodichloromethane	19.77	0.50	20.0	0	98.9%	64	131	0			
cis-1,3-Dichloropropene	18.91	1.0	20.0	0	94.6%	63	138	0			
Toluene	17.90	0.50	20.0	0	89.5%	85	117	0			
Tetrachloroethene	18.75	0.50	20.0	0	93.8%	60	133	0			
trans-1,3-Dichloropropene	18.69	1.0	20.0	0	93.4%	58	129	0			
1,1,2-Trichloroethane	17.13	0.50	20.0	0	85.7%	76	117	0			
Dibromochloromethane	20.36	0.50	20.0	0	102%	67	122	0			
Chlorobenzene	18.69	0.50	20.0	0	93.4%	74	115	0			
Ethylbenzene	18.89	0.50	20.0	0	94.5%	73	117	0			
m,p-Xylene	38.70	0.50	40.0	0	96.7%	77	116	0			
o-Xylene	19.02	0.50	20.0	0	95.1%	84	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike

Bromoform	21.67	0.50	20.0	0	108%	61	121	0
1,1,2,2-Tetrachloroethane	17.45	0.50	20.0	0	87.2%	62	119	0
1,3-Dichlorobenzene	20.03	0.50	20.0	0	100%	87	113	0
1,4-Dichlorobenzene	18.92	0.50	20.0	0	94.6%	84	107	0
1,2-Dichlorobenzene	20.18	0.50	20.0	0	101%	84	107	0
Surrogate: Dibromofluoromethane	1.08	0.10	1.00	0	108%	81	125	0
Surrogate: 1,2-Dichloroethane-d4	1.14	0.10	1.00	0	114%	67	135	0
Surrogate: Toluene-d8	0.928	0.10	1.00	0	92.8%	84	118	0

Sample ID **1601454-05DMS** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/29/2016 4:19:05 AM** Prep Date
Client ID: **SM-7 SH** Run ID: **INIC2_160128A** SeqNo: **1228348**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	2.216	0.10	2.00	0.0215	110%	80	120	0			
Sulfate	22.56	0.50	20.0	2.48	100%	80	120	0			

Sample ID **1601454-05DMS** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 4:19:05 AM** Prep Date
Client ID: **SM-7 SH** Run ID: **INIC2_160128B** SeqNo: **1228382**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	2.126	0.10	2.00	0.0415	104%	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **1601454-05CMS** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 11:36:04 AM** Prep Date **1/28/2016**

Client ID: **SM-7 SH(DISSOLVED)** Run ID: **ICPMS2_160203A** SeqNo: **1228491**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	504.2	25	500	0	101%	70	130	0			
Arsenic	501.3	25	500	0	100%	70	130	0			
Barium	460.4	25	500	1.32	91.8%	70	130	0			
Beryllium	509.7	5.0	500	0	102%	70	130	0			
Cadmium	492.9	25	500	0	98.6%	70	130	0			
Chromium	482.7	25	500	0.346	96.5%	70	130	0			
Cobalt	465.0	25	500	0.816	92.8%	70	130	0			
Copper	481.5	25	500	0	96.3%	70	130	0			
Lead	494.4	25	500	0.0690	98.9%	70	130	0			
Molybdenum	511.8	25	500	0.227	102%	70	130	0			
Nickel	497.6	25	500	24.9	94.5%	70	130	0			
Selenium	510.3	50	500	2.39	102%	70	130	0			
Silver	58.35	25	62.5	0	93.4%	70	130	0			
Thallium	481.7	25	500	0.322	96.3%	70	130	0			
Vanadium	475.2	25	500	0	95.0%	70	130	0			
Zinc	480.5	50	500	7.65	94.6%	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID **1601454-05CMSD** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 11:40:17 AM** Prep Date **1/28/2016**
Client ID: **SM-7 SH(DISSOLVED)** Run ID: **ICPMS2_160203A** SeqNo: **1228492**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	497.8	25	500	0	99.6%	70	130	504	1.28%	20	
Arsenic	493.6	25	500	0	98.7%	70	130	501	1.55%	20	
Barium	461.2	25	500	1.32	92.0%	70	130	460	0.176%	20	
Beryllium	502.1	5.0	500	0	100%	70	130	510	1.50%	20	
Cadmium	489.0	25	500	0	97.8%	70	130	493	0.804%	20	
Chromium	468.5	25	500	0.346	93.6%	70	130	483	2.97%	20	
Cobalt	456.4	25	500	0.816	91.1%	70	130	465	1.87%	20	
Copper	481.0	25	500	0	96.2%	70	130	482	0.0879%	20	
Lead	493.2	25	500	0.0690	98.6%	70	130	494	0.254%	20	
Molybdenum	516.1	25	500	0.227	103%	70	130	512	0.839%	20	
Nickel	489.0	25	500	24.9	92.8%	70	130	498	1.75%	20	
Selenium	494.9	50	500	2.39	98.5%	70	130	510	3.06%	20	
Silver	58.20	25	62.5	0	93.1%	70	130	58.4	0.245%	20	
Thallium	487.0	25	500	0.322	97.3%	70	130	482	1.10%	20	
Vanadium	468.3	25	500	0	93.7%	70	130	475	1.47%	20	
Zinc	550.5	50	500	7.65	109%	70	130	480	13.6%	20	

Sample ID **1601454-05CMS** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 1:00:36 PM** Prep Date **1/28/2016**
Client ID: **SM-7 SH(DISSOLVED)** Run ID: **_160205A** SeqNo: **1229005**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	573.6	15	500	112	92.4%	70	130	0			
Manganese	488.9	1.0	500	44.5	88.9%	70	130	0			
Potassium	3,755	10	2,500	847	116%	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID **1601454-05CMSD** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 1:04:13 PM** Prep Date **1/28/2016**

Client ID: **SM-7 SH(DISSOLVED)** Run ID: **_160205A** SeqNo: **1229006**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	566.2	15	500	112	90.9%	70	130	574	1.30%	20	
Manganese	481.4	1.0	500	44.5	87.4%	70	130	489	1.54%	20	
Potassium	3,709	10	2,500	847	114%	70	130	3,760	1.24%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 2/10/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-16039** Batch ID: **R85391** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/8/2016 1:04:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160208B** SeqNo: **1229342**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	15.96	0.50	20.0	0	79.8%	25	156	0			
Chloromethane	21.87	0.50	20.0	0	109%	27	165	0			
Vinyl chloride	23.69	0.50	20.0	0	118%	53	143	0			
Bromomethane	23.39	0.50	20.0	0	117%	24	166	0			
Chloroethane	22.39	0.50	20.0	0	112%	59	144	0			
Trichlorofluoromethane	23.05	0.50	20.0	0	115%	53	136	0			
1,1-Dichloroethene	18.56	0.50	20.0	0	92.8%	65	117	0			
Methylene chloride	19.87	0.50	20.0	0	99.3%	54	121	0			
trans-1,2-Dichloroethene	20.11	0.50	20.0	0	101%	71	123	0			
1,1-Dichloroethane	19.51	0.50	20.0	0	97.5%	80	117	0			
Chloroform	20.37	0.50	20.0	0	102%	69	119	0			
Carbon Tetrachloride	22.81	0.50	20.0	0	114%	61	141	0			
1,1,1-Trichloroethane	22.03	0.50	20.0	0	110%	79	119	0			
Benzene	18.36	0.50	20.0	0	91.8%	83	115	0			
1,2-Dichloroethane	21.31	0.50	20.0	0	107%	78	117	0			
Trichloroethene	21.37	0.50	20.0	0	107%	72	123	0			
1,2-Dichloropropane	18.39	1.0	20.0	0	91.9%	84	112	0			
Bromodichloromethane	21.62	0.50	20.0	0	108%	64	131	0			
cis-1,3-Dichloropropene	20.36	1.0	20.0	0	102%	63	138	0			
Toluene	18.94	0.50	20.0	0	94.7%	85	117	0			
Tetrachloroethene	21.50	0.50	20.0	0	108%	60	133	0			
trans-1,3-Dichloropropene	20.92	1.0	20.0	0	105%	58	129	0			
1,1,2-Trichloroethane	19.22	0.50	20.0	0	96.1%	76	117	0			
Dibromochloromethane	21.87	0.50	20.0	0	109%	67	122	0			
Chlorobenzene	18.19	0.50	20.0	0	91.0%	74	115	0			
Ethylbenzene	18.41	0.50	20.0	0	92.0%	73	117	0			
m,p-Xylene	37.45	0.50	40.0	0	93.6%	77	116	0			
o-Xylene	18.70	0.50	20.0	0	93.5%	84	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike

Bromoform	23.24	0.50	20.0	0	116%	61	121	0
1,1,2,2-Tetrachloroethane	18.60	0.50	20.0	0	93.0%	62	119	0
1,3-Dichlorobenzene	20.03	0.50	20.0	0	100%	87	113	0
1,4-Dichlorobenzene	19.25	0.50	20.0	0	96.2%	84	107	0
1,2-Dichlorobenzene	20.08	0.50	20.0	0	100%	84	107	0
Surrogate: Dibromofluoromethane	1.08	0.10	1.00	0	108%	81	125	0
Surrogate: 1,2-Dichloroethane-d4	1.13	0.10	1.00	0	113%	67	135	0
Surrogate: Toluene-d8	0.955	0.10	1.00	0	95.5%	84	118	0

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-16039** Batch ID: **R85391** Test Code: **8260EW** Units: **µg/L** Analysis Date **2/8/2016 1:36:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160208B** SeqNo: **1229343**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	14.80	0.50	20.0	0	74.0%	25	156	16.0	7.55%	30	
Chloromethane	21.02	0.50	20.0	0	105%	27	165	21.9	3.95%	30	
Vinyl chloride	23.06	0.50	20.0	0	115%	53	143	23.7	2.70%	30	
Bromomethane	22.35	0.50	20.0	0	112%	24	166	23.4	4.53%	30	
Chloroethane	22.44	0.50	20.0	0	112%	59	144	22.4	0.210%	30	
Trichlorofluoromethane	22.58	0.50	20.0	0	113%	53	136	23.0	2.04%	30	
1,1-Dichloroethene	18.16	0.50	20.0	0	90.8%	65	117	18.6	2.15%	30	
Methylene chloride	20.13	0.50	20.0	0	101%	54	121	19.9	1.30%	30	
trans-1,2-Dichloroethene	19.93	0.50	20.0	0	99.6%	71	123	20.1	0.906%	30	
1,1-Dichloroethane	19.37	0.50	20.0	0	96.8%	80	117	19.5	0.718%	30	
Chloroform	20.30	0.50	20.0	0	101%	69	119	20.4	0.362%	30	
Carbon Tetrachloride	22.18	0.50	20.0	0	111%	61	141	22.8	2.79%	30	
1,1,1-Trichloroethane	22.30	0.50	20.0	0	112%	79	119	22.0	1.22%	30	
Benzene	18.30	0.50	20.0	0	91.5%	83	115	18.4	0.352%	30	
1,2-Dichloroethane	21.47	0.50	20.0	0	107%	78	117	21.3	0.723%	30	
Trichloroethene	21.12	0.50	20.0	0	106%	72	123	21.4	1.16%	30	
1,2-Dichloropropane	18.35	1.0	20.0	0	91.8%	84	112	18.4	0.192%	30	
Bromodichloromethane	21.49	0.50	20.0	0	107%	64	131	21.6	0.610%	30	
cis-1,3-Dichloropropene	20.14	1.0	20.0	0	101%	63	138	20.4	1.10%	30	
Toluene	18.57	0.50	20.0	0	92.9%	85	117	18.9	1.99%	30	
Tetrachloroethene	21.58	0.50	20.0	0	108%	60	133	21.5	0.343%	30	
trans-1,3-Dichloropropene	20.99	1.0	20.0	0	105%	58	129	20.9	0.317%	30	
1,1,2-Trichloroethane	19.92	0.50	20.0	0	99.6%	76	117	19.2	3.57%	30	
Dibromochloromethane	22.44	0.50	20.0	0	112%	67	122	21.9	2.55%	30	
Chlorobenzene	18.53	0.50	20.0	0	92.6%	74	115	18.2	1.82%	30	
Ethylbenzene	18.59	0.50	20.0	0	92.9%	73	117	18.4	0.956%	30	
m,p-Xylene	37.79	0.50	40.0	0	94.5%	77	116	37.4	0.905%	30	
o-Xylene	18.91	0.50	20.0	0	94.5%	84	122	18.7	1.09%	30	
Bromoform	24.08	0.50	20.0	0	120%	61	121	23.2	3.55%	30	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

1,1,2,2-Tetrachloroethane	18.75	0.50	20.0	0	93.8%	62	119	18.6	0.815%	30
1,3-Dichlorobenzene	20.12	0.50	20.0	0	101%	87	113	20.0	0.473%	30
1,4-Dichlorobenzene	19.33	0.50	20.0	0	96.6%	84	107	19.2	0.424%	30
1,2-Dichlorobenzene	20.26	0.50	20.0	0	101%	84	107	20.1	0.907%	30
Surrogate: Dibromofluoromethane	1.10	0.10	1.00	0	110%	81	125	1.08	2.51%	30
Surrogate: 1,2-Dichloroethane-d4	1.13	0.10	1.00	0	113%	67	135	1.13	0.204%	30
Surrogate: Toluene-d8	0.947	0.10	1.00	0	94.7%	84	118	0.955	0.852%	30

Sample ID **LCS WL-02011601** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228037**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	49.62	5.0	50.0	0	99.2%	85	115	0			

Sample ID **LCSD WL-020116** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228038**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	52.48	5.0	50.0	0	105%	85	115	49.6	5.62%	20	

Sample ID **LCS WL-012816-0** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/28/2016 7:12:28 PM** Prep Date
Client ID: Run ID: **INIC2_160128A** SeqNo: **1228336**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.005	0.10	1.00	0	101%	90	110	0			
Sulfate	10.25	0.50	10.0	0	102%	90	110	0			

Sample ID **LCSD WL-012816-** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/28/2016 7:30:06 PM** Prep Date
Client ID: Run ID: **INIC2_160128A** SeqNo: **1228337**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.003	0.10	1.00	0	100%	90	110	1.00	0.208%	10	
Sulfate	10.25	0.50	10.0	0	103%	90	110	10.2	0.0923%	10	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS2 WL-012816-** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/29/2016 3:43:49 AM** Prep Date
Client ID: Run ID: **INIC2_160128A** SeqNo: **1228346**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.014	0.10	1.00	0	101%	90	110	0			
Sulfate	10.40	0.50	10.0	0	104%	90	110	0			

Sample ID **LCSD2 WL-01281** Batch ID: **R85324** Test Code: **ICIONW** Units: **mg/L** Analysis Date **1/29/2016 4:01:27 AM** Prep Date
Client ID: Run ID: **INIC2_160128A** SeqNo: **1228347**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.015	0.10	1.00	0	101%	90	110	1.01	0.0137%	10	
Sulfate	10.35	0.50	10.0	0	103%	90	110	10.4	0.532%	10	

Sample ID **LCS WL-012816-0** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/28/2016 7:12:28 PM** Prep Date
Client ID: Run ID: **INIC2_160128B** SeqNo: **1228358**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.026	0.10	1.00	0	103%	90	110	0			

Sample ID **LCSD WL-012816-** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/28/2016 7:30:06 PM** Prep Date
Client ID: Run ID: **INIC2_160128B** SeqNo: **1228359**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.020	0.10	1.00	0	102%	90	110	1.03	1.33%	10	

Sample ID **LCS2 WL-012816-** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 3:43:49 AM** Prep Date
Client ID: Run ID: **INIC2_160128B** SeqNo: **1228380**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.033	0.10	1.00	0	103%	90	110	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD2 WL-01281** Batch ID: **R85325** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 4:01:27 AM** Prep Date
Client ID: Run ID: **INIC2_160128B** SeqNo: **1228381**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.025	0.10	1.00	0	103%	90	110	1.03	0.809%	10	

Sample ID **LCS-32928** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 10:58:08 AM** Prep Date **1/28/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228472**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	514.1	25	500	0	103%	85	115	0			
Arsenic	523.4	25	500	0	105%	85	115	0			
Barium	478.5	25	500	0	95.7%	85	115	0			
Beryllium	536.5	5.0	500	0	107%	85	115	0			
Cadmium	497.7	25	500	0	99.5%	85	115	0			
Chromium	507.8	25	500	0	102%	85	115	0			
Cobalt	497.2	25	500	0	99.4%	85	115	0			
Copper	493.3	25	500	0	98.7%	85	115	0			
Lead	509.7	25	500	0	102%	85	115	0			
Molybdenum	510.3	25	500	0.236	102%	85	115	0			
Nickel	506.1	25	500	0	101%	85	115	0			
Selenium	546.0	50	500	0	109%	85	115	0			
Silver	60.64	25	62.5	0	97.0%	85	115	0			
Thallium	502.6	25	500	0	101%	85	115	0			
Vanadium	500.6	25	500	0	100%	85	115	0			
Zinc	490.8	50	500	0	98.2%	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-32928** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 11:02:20 AM** Prep Date **1/28/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228473**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	518.1	25	500	0	104%	85	115	514	0.761%	20	
Arsenic	520.2	25	500	0	104%	85	115	523	0.621%	20	
Barium	473.0	25	500	0	94.6%	85	115	478	1.16%	20	
Beryllium	539.6	5.0	500	0	108%	85	115	536	0.577%	20	
Cadmium	497.6	25	500	0	99.5%	85	115	498	0.0205%	20	
Chromium	507.8	25	500	0	102%	85	115	508	0.00709%	20	
Cobalt	506.3	25	500	0	101%	85	115	497	1.82%	20	
Copper	500.1	25	500	0	100%	85	115	493	1.37%	20	
Lead	507.0	25	500	0	101%	85	115	510	0.533%	20	
Molybdenum	541.1	25	500	0.236	108%	85	115	510	5.86%	20	
Nickel	504.7	25	500	0	101%	85	115	506	0.293%	20	
Selenium	511.8	50	500	0	102%	85	115	546	6.46%	20	
Silver	61.30	25	62.5	0	98.1%	85	115	60.6	1.08%	20	
Thallium	500.6	25	500	0	100%	85	115	503	0.386%	20	
Vanadium	507.4	25	500	0	101%	85	115	501	1.35%	20	
Zinc	486.6	50	500	0	97.3%	85	115	491	0.856%	20	

Sample ID **LCS-32928** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:37:23 PM** Prep Date **1/28/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228996**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	456.1	20	500	0	91.2%	85	115	0			
Iron	495.4	15	500	0	99.1%	85	115	0			
Magnesium	481.3	20	500	0	96.3%	85	115	0			
Manganese	486.0	1.0	500	0	97.2%	85	115	0			
Potassium	2,357	10	2,500	0	94.3%	85	115	0			
Sodium	482.6	20	500	0	96.5%	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601454
Project: Landfill Groundwater

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-32928** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:40:00 PM** Prep Date **1/28/2016**

Client ID: Run ID: **_160205A** SeqNo: **1228997**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	452.1	20	500	0	90.4%	85	115	456	0.880%	20	
Iron	493.8	15	500	0	98.8%	85	115	495	0.326%	20	
Magnesium	481.8	20	500	0	96.4%	85	115	481	0.120%	20	
Manganese	483.7	1.0	500	0	96.7%	85	115	486	0.462%	20	
Potassium	2,354	10	2,500	0	94.1%	85	115	2,360	0.129%	20	
Sodium	478.8	20	500	0	95.8%	85	115	483	0.779%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

P. 1 of 1

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 1601454

Attention: Trudi Blasi
Results & Invoice to: Del Norte Solid Waste Mgmt Authority
Address: 1700 State Street
Crescent City, CA 95531
Phone: 707-465-1100
Copies of Report to: Gina Morrison NCRWQCB
Hoawa Moua, DNC Envir Health
Sampler (Sign & Print): Kaylen Warner Kayleen Warner

PROJECT INFORMATION
Project Number:
Project Name: Landfill Groundwater
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	ANALYSIS: CD7	ANALYSIS: EPA 8260 hist II	ANALYSIS: Dissolved Metals Na & hard	ANALYSIS: Minerals
	W-1 W Shallow	1-27-16	11:50	GW						
	W-2 Deep	1-27-16	9:45							
	W-3S Shallow	1-27-16	11:20							
	W-10 Shallow	1-27-16	10:40							
	SM-7 Shallow	1-27-16	11:40							
	SM-6 Shallow	1-27-16	1:00							

TAT: ☒ STD (2-3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:
☐ State Forms
☒ Geotracker ☐ SWAMP ☐ Other EDD:
☒ Final Report PDF ☐ FAX By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other
PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SPECIAL INSTRUCTIONS	SAMPLE CONDITION
	Temperature 3.0 °C
meter Not working	Received On Ice? Y/N
	Samples Intact? Y/N
	Preserved? Y/N
Other all samples before testing for metals	Preserved @ NCL? Y/N/NA

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Kaylen Warner Kayleen Warner	1-28-16 8:45	[signature]	8:45 1-28
		[signature] 1/28/16	1045

SAMPLE DISPOSAL
☒ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Fed-Ex Hand Efficiency

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

GLOBAL ID	FIELD POINT NAME	**NAME FOR GEOTRACKER**	RP FACID
L10009924975	E-1 DEEP	E-1 DEEP	
L10009924975	E-1 SHALLOW	E-1 SH	
L10009924975	W-6W DEEP	W-6W DEEP	
L10009924975	W-6E SHALLOW	W-6E SH	
L10009924975	S-2	S-2	
L10009924975	S-2B	S-2B	
L10009924975	SM-6 SHALLOW	SM-6 SH	
L10009924975	W-10 SHALLOW	W-10 SH	
L10009924975	E-2 DEEP	E-2 DEEP	
L10009924975	W-2 DEEP	W-2 DEEP	
L10009924975	L-1	L-1	
L10009924975	L-3	L-3	
L10009924975	L-2	L-2	
L10009924975	SM-7 SHALLOW	SM-7 SH	
L10009924975	W-1W SHALLOW	W-1W SH	
L10009924975	W-8 SHALLOW	W-8 SH	
L10009924975	E-3 DEEP	E-3 DEEP	
L10009924975	E-3 SHALLOW	E-3 SH	
L10009924975	E-4 SHALLOW	E-4 SH	
L10009924975	E-4 DEEP	E-4 DEEP	
L10009924975	W-1E DEEP	W-1E DEEP	
L10009924975	W-3S SHALLOW	W-3S SH	
L10009924975	W-9 DEEP	W-9 DEEP	
L10009924975	W-9 SHALLOW	W-9 SH	
L10009924975	S-1	S-1	
L10009924975	S-3	S-3	

LF + Surface Groundwater

SAMPLE CONTAINER ORDER FORM

CLIENT NAME: Del Norte SWA	**DATE OF REQUEST:** 12/29/15
ADDRESS (Street not PO Box) : 1700 State Street	
Crescent City, CA 95531	
CONTACT PERSON: Tedd Ward	**PHONE NUMBER:** 465-1100
SHIP BY: 1/7/16	**PROJECT NAME:** Landfill Groundwater

__X__ **TEMP BLANK**
_____ **SAMPLING INSTRUCTIONS**

Deliver		Pickup		Cooler	X	Box	
Ship	X	UPS		Airborne		Fed X	
DW Samples		Chlorinated Samples		US Mail		Fed X Ground	

SPECIAL INSTRUCTIONS:
DO NOT USE BLUE ICE – Send plastic "ICE" bottles
Label outside of coolers – "Groundwater"
Bag by complete sets [Each set = (1)125 mL amber + (3)pres.VOA +(2)500 mL plastic
Metals = ICPMS (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Th, V, Zn), ICP (Ca, Fe, Mg, Mn, K, Na), Hg, and hardness
DNSWAGWMINS = DNSWA Groundwater Minerals = alkalinity, anions, conductivity, fluoride, sulfate, nitrate, pH and TDS

ANALYSIS	# OF Samples	Bottle Type/ Sample Volume	Number of Containers	Preservation
COD	17	125 mL amber glass	17	H2SO4
EPA 8260 List 11	17	(3) 40 mL amber VOA	51 + **TB**	HCl
Diss ICAP Mets + Na & Hard.	17	500 mL plastic	17	-
Minerals	17	500 mL plastic	17	-

Requested Taken By	rgm	Prepared & Shipped By		Date Shipped		Method of Shipment	

NORTH COAST LABORATORIES LTD.

February 23, 2016

Del Norte Solid Waste Authority
1700 State Street
Crescent City, CA 95531

Order No.: 1601455
Invoice No.: 125960
PO No.:

Attn: Tedd Ward

ELAP No.1247-Expires July 2016

RE: Landfill Surface Water

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	S-1
01B	S-1
01C	S-1(DISSOLVED)
01D	S-1
01E	S-1
02A	S-2
02B	S-2
02C	S-2(DISSOLVED)
02D	S-2
02E	S-2
03A	S-3
03B	S-3
03C	S-3(DISSOLVED)
03D	S-3
03E	S-3

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Trudie Blasi, Project Manager

Date: 23-Feb-2016
WorkOrder: 1601455

CASE NARRATIVE

Samples for dissolved metals analysis must be filtered within 15 minutes of collection. Therefore, any samples that were filtered by the laboratory were filtered past the official holding time.

B11: Due to the nature of the matrix, less than the optimum sample volume was used for extraction. The method reporting limit has been adjusted to reflect this.

Nitrate:
Due to a laboratory error the nitrate samples were analyzed past the holding time. The charges for this analysis have been removed.

Date: 23-Feb-2016
WorkOrder: 1601455

ANALYTICAL REPORT

Client Sample ID: S-1
Lab ID: 1601455-01A

Received: 1/28/2016
Collected: 1/27/2016 12:20

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	30		5.0	mg/L	1.0	2/1/2016	2/2/2016

Client Sample ID: S-1
Lab ID: 1601455-01B

Received: 1/28/2016
Collected: 1/27/2016 12:20

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.6		N/A	pH Units	1.0		1/28/2016

Test Name: Settleable Solids
Reference: Std. Meth. 20th Ed. 2540 F

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Settleable Solids	ND		0.10	mL/L/hour	1.0		1/29/2016

Test Name: Turbidity
Reference: EPA 180.1

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Turbidity	2.9		0.050	NTU	1.0		1/29/2016

Client Sample ID: S-1(DISSOLVED)
Lab ID: 1601455-01C

Received: 1/28/2016
Collected: 1/27/2016 12:20

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	57		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Test Name: ICAP Metals
Reference: EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	4,400		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	330		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	11,000		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	24		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	2,800		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	6,500		20	µg/L	1.0	1/28/2016	2/5/2016

Date: 23-Feb-2016
WorkOrder: 1601455

ANALYTICAL REPORT

Client Sample ID: S-1(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601455-01C **Collected:** 1/27/2016 12:20

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	8.1		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: S-1 **Received:** 1/28/2016
Lab ID: 1601455-01D **Collected:** 1/27/2016 12:20

Test Name: Hexane Extractable Material-Silica Gel Cleanup **Reference:** EPA 1664B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Oil and Grease (TPH fraction)	ND		4.7	mg/L	0.94	2/11/2016	2/15/2016

Client Sample ID: S-1 **Received:** 1/28/2016
Lab ID: 1601455-01E **Collected:** 1/27/2016 12:20

Test Name: EPA 8260B **Reference:** EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Acetone	ND		5.0	µg/L	1.0		1/29/2016
Surrogate: 1,2-Dichloroethane-d4	110		67.1-135	% Rec	1.0		1/29/2016
Surrogate: Dibromofluoromethane	104		81.2-125	% Rec	1.0		1/29/2016
Surrogate: Toluene-d8	101		84.2-118	% Rec	1.0		1/29/2016

Date: 23-Feb-2016
WorkOrder: 1601455

ANALYTICAL REPORT

Client Sample ID: S-2
Lab ID: 1601455-02A

Received: 1/28/2016
Collected: 1/27/2016 12:40

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	280		25	mg/L	5.0	2/1/2016	2/2/2016

Client Sample ID: S-2
Lab ID: 1601455-02B

Received: 1/28/2016
Collected: 1/27/2016 12:40

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	6.9		N/A	pH Units	1.0		1/28/2016

Test Name: Settleable Solids
Reference: Std. Meth. 20th Ed. 2540 F

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Settleable Solids	110		0.10	mL/L/hour	1.0		1/29/2016

Test Name: Turbidity
Reference: EPA 180.1

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Turbidity	840		2.5	NTU	50		1/29/2016

Client Sample ID: S-2(DISSOLVED)
Lab ID: 1601455-02C

Received: 1/28/2016
Collected: 1/27/2016 12:40

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	190		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Test Name: ICAP Metals
Reference: EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	41,000		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	53		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	21,000		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	200		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	7,200		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	11,000		20	µg/L	1.0	1/28/2016	2/5/2016

Date: 23-Feb-2016
WorkOrder: 1601455

ANALYTICAL REPORT

Client Sample ID: S-2(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601455-02C **Collected:** 1/27/2016 12:40

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	110		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	5.8		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: S-2 **Received:** 1/28/2016
Lab ID: 1601455-02D **Collected:** 1/27/2016 12:40

Test Name: Hexane Extractable Material-Silica Gel Cleanup **Reference:** EPA 1664B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Oil and Grease (TPH fraction)	ND	B11	20	mg/L	4.0	2/17/2016	2/21/2016

Client Sample ID: S-2 **Received:** 1/28/2016
Lab ID: 1601455-02E **Collected:** 1/27/2016 12:40

Test Name: EPA 8260B **Reference:** EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Acetone	***5.0***		5.0	µg/L	1.0		1/29/2016
Surrogate: 1,2-Dichloroethane-d4	109		67.1-135	% Rec	1.0		1/29/2016
Surrogate: Dibromofluoromethane	103		81.2-125	% Rec	1.0		1/29/2016
Surrogate: Toluene-d8	97.4		84.2-118	% Rec	1.0		1/29/2016

Date: 23-Feb-2016
WorkOrder: 1601455

ANALYTICAL REPORT

Client Sample ID: S-3
Lab ID: 1601455-03A

Received: 1/28/2016
Collected: 1/27/2016 13:30

Test Name: Chemical Oxygen Demand
Reference: HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	18		5.0	mg/L	1.0	2/1/2016	2/2/2016

Client Sample ID: S-3
Lab ID: 1601455-03B

Received: 1/28/2016
Collected: 1/27/2016 13:30

Test Name: Nitrate and/or Nitrite
Reference: EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	***0.16***		0.10	mg/L	1.0		1/29/2016

Test Name: pH
Reference: Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.1		N/A	pH Units	1.0		1/28/2016

Test Name: Settleable Solids
Reference: Std. Meth. 20th Ed. 2540 F

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Settleable Solids	ND		0.10	mL/L/hour	1.0		1/29/2016

Test Name: Turbidity
Reference: EPA 180.1

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Turbidity	4.8		0.050	NTU	1.0		1/29/2016

Client Sample ID: S-3(DISSOLVED)
Lab ID: 1601455-03C

Received: 1/28/2016
Collected: 1/27/2016 13:30

Test Name: Hardness
Reference: Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	50		1.0	mg/L CaCO3	1.0	1/28/2016	2/5/2016

Test Name: ICAP Metals
Reference: EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	5,800		20	µg/L	1.0	1/28/2016	2/5/2016
Iron	1,100		15	µg/L	1.0	1/28/2016	2/5/2016
Magnesium	8,600		20	µg/L	1.0	1/28/2016	2/5/2016
Manganese	64		1.0	µg/L	1.0	1/28/2016	2/5/2016
Potassium	1,400		10	µg/L	1.0	1/28/2016	2/5/2016
Sodium	8,500		20	µg/L	1.0	1/28/2016	2/5/2016

Date: 23-Feb-2016
WorkOrder: 1601455

ANALYTICAL REPORT

Client Sample ID: S-3(DISSOLVED) **Received:** 1/28/2016
Lab ID: 1601455-03C **Collected:** 1/27/2016 13:30

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Antimony	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Arsenic	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Barium	6.5		5.0	µg/L	1.0	1/28/2016	2/3/2016
Beryllium	ND		1.0	µg/L	1.0	1/28/2016	2/3/2016
Cadmium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Chromium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Cobalt	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Copper	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Lead	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Molybdenum	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Nickel	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Selenium	ND		10	µg/L	1.0	1/28/2016	2/3/2016
Silver	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Thallium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Vanadium	ND		5.0	µg/L	1.0	1/28/2016	2/3/2016
Zinc	ND		10	µg/L	1.0	1/28/2016	2/3/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	1/28/2016	2/4/2016

Client Sample ID: S-3 **Received:** 1/28/2016
Lab ID: 1601455-03D **Collected:** 1/27/2016 13:30

Test Name: Hexane Extractable Material-Silica Gel Cleanup **Reference:** EPA 1664B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Oil and Grease (TPH fraction)	ND		4.7	mg/L	0.94	2/11/2016	2/15/2016

Client Sample ID: S-3 **Received:** 1/28/2016
Lab ID: 1601455-03E **Collected:** 1/27/2016 13:30

Test Name: EPA 8260B **Reference:** EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Acetone	ND		5.0	µg/L	1.0		1/29/2016
Surrogate: 1,2-Dichloroethane-d4	111		67.1-135	% Rec	1.0		1/29/2016
Surrogate: Dibromofluoromethane	102		81.2-125	% Rec	1.0		1/29/2016
Surrogate: Toluene-d8	102		84.2-118	% Rec	1.0		1/29/2016

North Coast Laboratories, Ltd.

Date: 2/23/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Method Blank

Sample ID **MBLK** Batch ID: **R85473** Test Code: **1664SGW** Units: **mg/L** Analysis Date **2/15/2016 15:00:00** Prep Date **2/11/2016**
Client ID: Run ID: **WC_160211F** SeqNo: **1230574**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (TPH fraction)	ND	5.0									

Sample ID **MBLK** Batch ID: **R85550** Test Code: **1664SGW** Units: **mg/L** Analysis Date **2/21/2016 12:00:00** Prep Date **2/17/2016**
Client ID: Run ID: **WC_160217C** SeqNo: **1231498**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (TPH fraction)	ND	5.0									

Sample ID **MB 012916** Batch ID: **R85282** Test Code: **8260EW** Units: **µg/L** Analysis Date **1/29/2016 15:49:00** Prep Date
Client ID: Run ID: **ORGCMS2_160129B** SeqNo: **1227833**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	ND	5.0									
Surrogate: Dibromofluoromethane	1.03	0.10	1.00	0	103%	81	125	0			
Surrogate: 1,2-Dichloroethane-d4	1.08	0.10	1.00	0	108%	67	135	0			
Surrogate: Toluene-d8	1.02	0.10	1.00	0	102%	84	118	0			

Sample ID **MBLK 020116** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228036**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	5.0									

Sample ID **MBLK 012916** Batch ID: **R85385** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 17:43:11** Prep Date
Client ID: Run ID: **INIC2_160129A** SeqNo: **1229283**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	ND	0.10									

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Method Blank

Sample ID **MB-32928** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 10:53:56** Prep Date **1/28/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228471**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	5.0									
Arsenic	ND	5.0									
Barium	ND	5.0									
Beryllium	ND	1.0									
Cadmium	ND	5.0									
Chromium	ND	5.0									
Cobalt	ND	5.0									
Copper	ND	5.0									
Lead	ND	5.0									
Molybdenum	ND	5.0									
Nickel	ND	5.0									
Selenium	ND	10									
Silver	ND	5.0									
Thallium	ND	5.0									
Vanadium	ND	5.0									
Zinc	ND	10									

Sample ID **MB-32928** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:35:40** Prep Date **1/28/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228995**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	ND	20									
Iron	ND	15									
Magnesium	ND	20									
Manganese	ND	1.0									
Potassium	ND	10									
Sodium	ND	20									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 2/23/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **1601455-01BMS** Batch ID: **R85385** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 18:36:04** Prep Date

Client ID: **S-1** Run ID: **INIC2_160129A** SeqNo: **1229286**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	2.071	0.10	2.00	0	104%	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 2/23/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS** Batch ID: **R85473** Test Code: **1664SGW** Units: **mg/L** Analysis Date **2/15/2016 15:00:00** Prep Date **2/11/2016**
Client ID: Run ID: **WC_160211F** SeqNo: **1230575**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (TPH fraction)	32.80	5.0	40.0	0	82.0%	57	118	0			

Sample ID **LCSD** Batch ID: **R85473** Test Code: **1664SGW** Units: **mg/L** Analysis Date **2/15/2016 15:00:00** Prep Date **2/11/2016**
Client ID: Run ID: **WC_160211F** SeqNo: **1230576**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (TPH fraction)	26.30	5.0	40.0	0	65.7%	57	118	32.8	22.0%	34	

Sample ID **LCS** Batch ID: **R85550** Test Code: **1664SGW** Units: **mg/L** Analysis Date **2/21/2016 12:00:00** Prep Date **2/17/2016**
Client ID: Run ID: **WC_160217C** SeqNo: **1231499**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (TPH fraction)	33.50	5.0	40.0	0	83.8%	57	118	0			

Sample ID **LCSD** Batch ID: **R85550** Test Code: **1664SGW** Units: **mg/L** Analysis Date **2/21/2016 12:00:00** Prep Date **2/17/2016**
Client ID: Run ID: **WC_160217C** SeqNo: **1231500**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (TPH fraction)	32.00	5.0	40.0	0	80.0%	57	118	33.5	4.58%	34	

Sample ID **LCS-16023** Batch ID: **R85282** Test Code: **8260EW** Units: **µg/L** Analysis Date **1/29/2016 14:24:00** Prep Date
Client ID: Run ID: **ORGCMS2_160129B** SeqNo: **1227831**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	18.22	5.0	20.0	0	91.1%	20	163	0			
Surrogate: Dibromofluoromethane	0.992	0.10	1.00	0	99.2%	81	125	0			
Surrogate: 1,2-Dichloroethane-d4	1.11	0.10	1.00	0	111%	67	135	0			
Surrogate: Toluene-d8	1.04	0.10	1.00	0	104%	84	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-16023** Batch ID: **R85282** Test Code: **8260EW** Units: **µg/L** Analysis Date **1/29/2016 14:52:00** Prep Date
Client ID: Run ID: **ORGCMS2_160129B** SeqNo: **1227832**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	17.41	5.0	20.0	0	87.1%	20	163	18.2	4.55%	30	
Surrogate: Dibromofluoromethane	1.02	0.10	1.00	0	102%	81	125	0.992	2.90%	30	
Surrogate: 1,2-Dichloroethane-d4	1.11	0.10	1.00	0	111%	67	135	1.11	0.423%	30	
Surrogate: Toluene-d8	1.05	0.10	1.00	0	105%	84	118	1.04	0.998%	30	

Sample ID **LCS WL-02011601** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228037**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	49.62	5.0	50.0	0	99.2%	85	115	0			

Sample ID **LCSD WL-020116** Batch ID: **R85301** Test Code: **CODW** Units: **mg/L** Analysis Date **2/2/2016** Prep Date **2/1/2016**
Client ID: Run ID: **WC_160202F** SeqNo: **1228038**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	52.48	5.0	50.0	0	105%	85	115	49.6	5.62%	20	

Sample ID **LCS WL-012916-0** Batch ID: **R85385** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 18:00:49** Prep Date
Client ID: Run ID: **INIC2_160129A** SeqNo: **1229284**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.014	0.10	1.00	0	101%	90	110	0			

Sample ID **LCSD WL-012916-** Batch ID: **R85385** Test Code: **ICNOW** Units: **mg/L** Analysis Date **1/29/2016 18:18:27** Prep Date
Client ID: Run ID: **INIC2_160129A** SeqNo: **1229285**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	1.015	0.10	1.00	0	102%	90	110	1.01	0.103%	10	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-32928** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 10:58:08** Prep Date **1/28/2016**

Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228472**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	514.1	25	500	0	103%	85	115	0			
Arsenic	523.4	25	500	0	105%	85	115	0			
Barium	478.5	25	500	0	95.7%	85	115	0			
Beryllium	536.5	5.0	500	0	107%	85	115	0			
Cadmium	497.7	25	500	0	99.5%	85	115	0			
Chromium	507.8	25	500	0	102%	85	115	0			
Cobalt	497.2	25	500	0	99.4%	85	115	0			
Copper	493.3	25	500	0	98.7%	85	115	0			
Lead	509.7	25	500	0	102%	85	115	0			
Molybdenum	510.3	25	500	0.236	102%	85	115	0			
Nickel	506.1	25	500	0	101%	85	115	0			
Selenium	546.0	50	500	0	109%	85	115	0			
Silver	60.64	25	62.5	0	97.0%	85	115	0			
Thallium	502.6	25	500	0	101%	85	115	0			
Vanadium	500.6	25	500	0	100%	85	115	0			
Zinc	490.8	50	500	0	98.2%	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-32928** Batch ID: **32928** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **2/3/2016 11:02:20** Prep Date **1/28/2016**
Client ID: Run ID: **ICPMS2_160203A** SeqNo: **1228473**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	518.1	25	500	0	104%	85	115	514	0.761%	20	
Arsenic	520.2	25	500	0	104%	85	115	523	0.621%	20	
Barium	473.0	25	500	0	94.6%	85	115	478	1.16%	20	
Beryllium	539.6	5.0	500	0	108%	85	115	536	0.577%	20	
Cadmium	497.6	25	500	0	99.5%	85	115	498	0.0205%	20	
Chromium	507.8	25	500	0	102%	85	115	508	0.00709%	20	
Cobalt	506.3	25	500	0	101%	85	115	497	1.82%	20	
Copper	500.1	25	500	0	100%	85	115	493	1.37%	20	
Lead	507.0	25	500	0	101%	85	115	510	0.533%	20	
Molybdenum	541.1	25	500	0.236	108%	85	115	510	5.86%	20	
Nickel	504.7	25	500	0	101%	85	115	506	0.293%	20	
Selenium	511.8	50	500	0	102%	85	115	546	6.46%	20	
Silver	61.30	25	62.5	0	98.1%	85	115	60.6	1.08%	20	
Thallium	500.6	25	500	0	100%	85	115	503	0.386%	20	
Vanadium	507.4	25	500	0	101%	85	115	501	1.35%	20	
Zinc	486.6	50	500	0	97.3%	85	115	491	0.856%	20	

Sample ID **LCS-32928** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:37:23** Prep Date **1/28/2016**
Client ID: Run ID: **_160205A** SeqNo: **1228996**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	456.1	20	500	0	91.2%	85	115	0			
Iron	495.4	15	500	0	99.1%	85	115	0			
Magnesium	481.3	20	500	0	96.3%	85	115	0			
Manganese	486.0	1.0	500	0	97.2%	85	115	0			
Potassium	2,357	10	2,500	0	94.3%	85	115	0			
Sodium	482.6	20	500	0	96.5%	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1601455
Project: Landfill Surface Water

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-32928** Batch ID: **32928** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/5/2016 12:40:00** Prep Date **1/28/2016**

Client ID: Run ID: **_160205A** SeqNo: **1228997**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	452.1	20	500	0	90.4%	85	115	456	0.880%	20	
Iron	493.8	15	500	0	98.8%	85	115	495	0.326%	20	
Magnesium	481.8	20	500	0	96.4%	85	115	481	0.120%	20	
Manganese	483.7	1.0	500	0	96.7%	85	115	486	0.462%	20	
Potassium	2,354	10	2,500	0	94.1%	85	115	2,360	0.129%	20	
Sodium	478.8	20	500	0	95.8%	85	115	483	0.779%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

P. 1 of 1

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 1601455

Attention: Trudi Blasi
Results & Invoice to: Del Norte Solid Waste Authority
Address: 1700 State Street
Crescent City CA 95531
Phone: 707-465-1100
Copies of Report to: Gina Morrison NCRWQCB
Hovawa Moya DNC Enviro Health
Sampler (Sign & Print): Kayleen Warner Kayleen Warner

TAT: ☒ STD (2-3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:
☐ State Forms
☒ Geotracker ☐ SWAMP ☐ Other EDD:
☒ Final Report PDF ☐ FAX By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other
PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number:
Project Name: Landfill Surface Water
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CO D	SS pH	MBAS	Metals Dissolved	1664 SGW	Acetone
	S-1	1-27-16	12:20	SW	X	X	X	X	X	
	S-2	1-27-16	12:40	↓	X	X	X	X	X	
	S-3	1-27-16	1:30	↓	X	X	X	X	X	

PRESERVATIVE / CONTAINER

SPECIAL INSTRUCTIONS	SAMPLE CONDITION
	Temperature 7.8 °C
Meter Not Working	
	Received On Ice? (Y) N
	Samples Intact? (Y) N
	Preserved? (Y) N
Filter all samples before testing for Metals	Preserved @ NCL? Y / N / (NA)

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Kayleen Warner Kayleen Warner	1-28-16 8:45	D. [illegible] 1/28/16	8:45 1-28 1045

SAMPLE DISPOSAL
☒ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Fed-Ex Hand Efficiency

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

PLEASE NOTE: THIS ORDER CONTAINS TEMPERATURE AND TIME-SENSITIVE TESTS.

SAMPLE CONTAINER ORDER FORM

CLIENT NAME: Del Norte SWA	**DATE OF REQUEST:** 12/29/15
ADDRESS (Street not PO Box) : 1700 State Street, Crescent City, CA 95531	
CONTACT PERSON: Tedd Ward	**PHONE NUMBER**: (707)465-1100
SHIP BY: 1/7/16	**PROJECT NAME**: LF Surface Water

☐ **TEMP. BLANK PER COOLER**

Deliver		Pickup		Cooler	X	Box	
Ship	X	UPS		Airborne		Fed X	
DW Samples		Chlorinated Samples		US Mail		Fed X Ground	

Special Instructions:

SEND PLENTY OF "ICE" BOTTLES. LABEL OUTSIDE OF COOLERS WITH PROJECT NAME.

BAG BY SAMPLE LOCATION – 1 OF EACH TEST GROUP PER BAG.

Metals = Ag, As, Ba, Be, Cd, Cr, Co, Cu, Hg, Pb, Mn, Mo, Ni, Sb, Se, Th, V, Zn, Ca, Fe, Mg, K, Na - hardness

ANALYSIS	# OF Samples	Bottle Type/ Sample Volume	Number of Containers	Preservation
COD	3	250 mL plastic	3	H2SO4
SS, pH, NO3-N,Turb	3	½ Gallon Plastic	3	None
Metals, Dissolved	3	500 mL Plastic	3	None
1664SGW	3	(2) 1L Amber Glass	6	HCL
Acetone	3	(3) 40 mL VOA	9 + 1 TB	HCl

Requested Taken By	rgm	Prepared & Shipped By		Date Shipped		Method of Shipment	

NORTH COAST LABORATORIES LTD.

April 25, 2016

Del Norte Solid Waste Authority
1700 State Street
Crescent City, CA 95531

Order No.: 1604141
Invoice No.: 126948
PO No.:

Attn: Tedd Ward

ELAP No.1247-Expires July 2016

RE: Residential Well Sampling

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	110-140-24
01B	110-140-24
01C	110-140-24 (Dissolved)
01E	110-140-24
02A	110-149-16
02B	110-149-16
02C	110-149-16 (Dissolved)
02E	110-149-16

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Roxanne Moore, Project Manager

Date: 25-Apr-2016
WorkOrder: 1604141

CASE NARRATIVE

THIS IS AN AMENDED REPORT:
The conductivity values have been amended.

Samples for dissolved metals analysis must be filtered within 15 minutes of collection. Therefore, any samples that were filtered by the laboratory were filtered past the official holding time.

Samples for pH, chlorine and dissolved oxygen analysis must be analyzed within 15 minutes of collection. Therefore, any samples requiring these analyses were analyzed past the official holding time.

Calcium/Magnesium/Sodium:
The matrix spike recoveries were not evaluated due to the large amount of analyte in the sample.

EPA 8260B:
The laboratory control sample duplicate (LCSD) recovery was above the upper acceptance limit for 1,2-dibromoethane. The elevated recovery equates to a high bias. There were no detectable levels of the analyte in the sample; therefore, the data were accepted.

The relative percent difference (RPD) between the laboratory control samples was above the acceptance limit for tert-butyl alcohol. This indicates that the sample results could be variable. Since there were no detectable levels of analyte in the sample, the data were accepted.

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-140-24 **Received:** 4/8/2016
Lab ID: 1604141-01A **Collected:** 4/7/2016 9:30

Test Name: Chemical Oxygen Demand **Reference:** HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	6.9		5.0	mg/L	1.0	4/11/2016	4/12/2016

Client Sample ID: 110-140-24 **Received:** 4/8/2016
Lab ID: 1604141-01B **Collected:** 4/7/2016 9:30

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	81		1.0	mg/L CaCO3	1.0		4/11/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chloride	***10***		0.10	mg/L	1.0		4/8/2016
Fluoride	ND		0.10	mg/L	1.0		4/8/2016
Sulfate	***1.8***		0.50	mg/L	1.0		4/8/2016

Test Name: Conductivity **Reference:** Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	210		1.0	µS/cm	1.0		4/22/2016

Test Name: Forms of Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	81		1.0	mg/L CaCO3	1.0		4/12/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		4/12/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		4/12/2016

Test Name: Nitrate and/or Nitrite **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		4/8/2016

Test Name: pH **Reference:** Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.2		N/A	pH Units	1.0		4/8/2016

Test Name: Total Dissolved Solids **Reference:** Std. Meth. 20th Ed. 2540 C

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	120		10	mg/L	1.0		4/13/2016

Client Sample ID: 110-140-24 (Dissolved) **Received:** 4/8/2016
Lab ID: 1604141-01C **Collected:** 4/7/2016 9:30

Test Name: Hardness **Reference:** Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	83		1.0	mg/L CaCO3	1.0	4/8/2016	4/15/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-140-24 (Dissolved) **Received:** 4/8/2016
Lab ID: 1604141-01C **Collected:** 4/7/2016 9:30

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	22,000		20	µg/L	1.0	4/8/2016	4/13/2016
Iron	22		15	µg/L	1.0	4/8/2016	4/13/2016
Magnesium	7,200		20	µg/L	1.0	4/8/2016	4/13/2016
Manganese	14		1.0	µg/L	1.0	4/8/2016	4/13/2016
Potassium	610		10	µg/L	1.0	4/8/2016	4/13/2016
Sodium	5,200		20	µg/L	1.0	4/8/2016	4/13/2016

Test Name: ICP-MS Metals **Reference:** EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Aluminum	ND		20	µg/L	1.0	4/8/2016	4/15/2016
Arsenic	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Barium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Beryllium	ND		1.0	µg/L	1.0	4/8/2016	4/15/2016
Cadmium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Chromium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Cobalt	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Lead	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Molybdenum	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Nickel	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Silver	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Thallium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Vanadium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Zinc	22		10	µg/L	1.0	4/8/2016	4/15/2016

Test Name: Mercury **Reference:** EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	4/14/2016	4/15/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-140-24
Lab ID: 1604141-01E

Received: 4/8/2016
Collected: 4/7/2016 9:30

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		4/14/2016
Chloromethane	ND		0.50	µg/L	1.0		4/14/2016
Vinyl chloride	ND		0.50	µg/L	1.0		4/14/2016
Bromomethane	ND		0.50	µg/L	1.0		4/14/2016
Chloroethane	ND		0.50	µg/L	1.0		4/14/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		4/14/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		4/14/2016
Methylene chloride	ND		0.50	µg/L	1.0		4/14/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		4/14/2016
Methyl tert-butyl ether (MTBE)	ND		0.50	µg/L	1.0		4/14/2016
Tert-butyl alcohol (TBA)	ND		10	µg/L	1.0		4/14/2016
Di-isopropyl ether (DIPE)	ND		1.0	µg/L	1.0		4/14/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		4/14/2016
Ethyl tert-butyl ether (ETBE)	ND		1.0	µg/L	1.0		4/14/2016
cis-1,2-Dichloroethene	ND		0.50	µg/L	1.0		4/14/2016
2,2-Dichloropropane	ND		0.50	µg/L	1.0		4/14/2016
Bromochloromethane	ND		0.50	µg/L	1.0		4/14/2016
Chloroform	ND		0.50	µg/L	1.0		4/14/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		4/14/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		4/14/2016
1,1-Dichloropropene	ND		0.50	µg/L	1.0		4/14/2016
Benzene	ND		0.50	µg/L	1.0		4/14/2016
Tert-amyl methyl ether (TAME)	ND		0.50	µg/L	1.0		4/14/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		4/14/2016
Trichloroethene	ND		0.50	µg/L	1.0		4/14/2016
Dibromomethane	ND		0.50	µg/L	1.0		4/14/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		4/14/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		4/14/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		4/14/2016
Toluene	ND		0.50	µg/L	1.0		4/14/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		4/14/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		4/14/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		4/14/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		4/14/2016
1,3-Dichloropropane	ND		1.0	µg/L	1.0		4/14/2016
1,2-Dibromoethane (EDB)	ND		1.0	µg/L	1.0		4/14/2016
Chlorobenzene	ND		0.50	µg/L	1.0		4/14/2016
Ethylbenzene	ND		0.50	µg/L	1.0		4/14/2016
1,1,1,2-Tetrachloroethane	ND		0.50	µg/L	1.0		4/14/2016
m,p-Xylene	ND		0.50	µg/L	1.0		4/14/2016
o-Xylene	ND		0.50	µg/L	1.0		4/14/2016
Bromoform	ND		0.50	µg/L	1.0		4/14/2016
Styrene	ND		0.50	µg/L	1.0		4/14/2016
Isopropylbenzene	ND		0.50	µg/L	1.0		4/14/2016
Bromobenzene	ND		0.50	µg/L	1.0		4/14/2016
n-Propylbenzene	ND		0.50	µg/L	1.0		4/14/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-140-24 **Received:** 4/8/2016
Lab ID: 1604141-01E **Collected:** 4/7/2016 9:30

1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1.0	4/14/2016
2-Chlorotoluene	ND	0.50	µg/L	1.0	4/14/2016
1,2,3-Trichloropropane	ND	1.0	µg/L	1.0	4/14/2016
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1.0	4/14/2016
4-Chlorotoluene	ND	0.50	µg/L	1.0	4/14/2016
tert-Butylbenzene	ND	0.50	µg/L	1.0	4/14/2016
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1.0	4/14/2016
sec-Butylbenzene	ND	0.50	µg/L	1.0	4/14/2016
4-Isopropyltoluene	ND	0.50	µg/L	1.0	4/14/2016
1,3-Dichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
1,4-Dichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
n-Butylbenzene	ND	0.50	µg/L	1.0	4/14/2016
1,2-Dichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1.0	4/14/2016
Hexachlorobutadiene	ND	0.50	µg/L	1.0	4/14/2016
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
Naphthalene	ND	1.0	µg/L	1.0	4/14/2016
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
Surrogate: 1,2-Dichloroethane-d4	96.9	67.1-135	% Rec	1.0	4/14/2016
Surrogate: Dibromofluoromethane	99.9	81.2-125	% Rec	1.0	4/14/2016
Surrogate: Toluene-d8	95.6	84.2-118	% Rec	1.0	4/14/2016

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		50	µg/L	1.0		4/13/2016

Client Sample ID: 110-149-16 **Received:** 4/8/2016
Lab ID: 1604141-02A **Collected:** 4/7/2016 10:00

Test Name: Chemical Oxygen Demand **Reference:** HACH 8000

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chemical Oxygen Demand	ND		5.0	mg/L	1.0	4/11/2016	4/12/2016

Client Sample ID: 110-149-16 **Received:** 4/8/2016
Lab ID: 1604141-02B **Collected:** 4/7/2016 10:00

Test Name: Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Alkalinity	170		1.0	mg/L CaCO3	1.0		4/11/2016

Test Name: Anions by Ion Chromatography **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Chloride	***9.8***		0.10	mg/L	1.0		4/8/2016
Fluoride	ND		0.10	mg/L	1.0		4/8/2016
Sulfate	***2.0***		0.50	mg/L	1.0		4/8/2016

Test Name: Conductivity **Reference:** Std. Meth. 20th Ed. 2510 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Conductivity	380		1.0	µS/cm	1.0		4/22/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-149-16 **Received:** 4/8/2016
Lab ID: 1604141-02B **Collected:** 4/7/2016 10:00

Test Name: Forms of Alkalinity **Reference:** Std. Meth. 20th Ed. 2320 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Bicarbonate	170		1.0	mg/L CaCO3	1.0		4/12/2016
Carbonate	ND		1.0	mg/L CaCO3	1.0		4/12/2016
Hydroxide	ND		1.0	mg/L CaCO3	1.0		4/12/2016

Test Name: Nitrate and/or Nitrite **Reference:** EPA 300.0 Rev 2.1 (1993)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		4/8/2016

Test Name: pH **Reference:** Std. Meth. 20th Ed. 4500-H B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
pH	7.6		N/A	pH Units	1.0		4/8/2016

Test Name: Total Dissolved Solids **Reference:** Std. Meth. 20th Ed. 2540 C

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Total Dissolved Solids	210		10	mg/L	1.0		4/13/2016

Client Sample ID: 110-149-16 (Dissolved) **Received:** 4/8/2016
Lab ID: 1604141-02C **Collected:** 4/7/2016 10:00

Test Name: Hardness **Reference:** Std. Meth. 20th Ed. 2340 B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Hardness	160		1.0	mg/L CaCO3	1.0	4/8/2016	4/15/2016

Test Name: ICAP Metals **Reference:** EPA 200.7 Rev 4.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Calcium	50,000		20	µg/L	1.0	4/8/2016	4/13/2016
Iron	ND		15	µg/L	1.0	4/8/2016	4/13/2016
Magnesium	9,200		20	µg/L	1.0	4/8/2016	4/13/2016
Manganese	9.9		1.0	µg/L	1.0	4/8/2016	4/13/2016
Potassium	890		10	µg/L	1.0	4/8/2016	4/13/2016
Sodium	9,700		20	µg/L	1.0	4/8/2016	4/13/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-149-16 (Dissolved)
Lab ID: 1604141-02C

Received: 4/8/2016
Collected: 4/7/2016 10:00

Test Name: ICP-MS Metals
Reference: EPA 200.8 Rev 5.4 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Aluminum	ND		20	µg/L	1.0	4/8/2016	4/15/2016
Arsenic	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Barium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Beryllium	ND		1.0	µg/L	1.0	4/8/2016	4/15/2016
Cadmium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Chromium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Cobalt	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Lead	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Molybdenum	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Nickel	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Silver	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Thallium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Vanadium	ND		5.0	µg/L	1.0	4/8/2016	4/15/2016
Zinc	16		10	µg/L	1.0	4/8/2016	4/15/2016

Test Name: Mercury
Reference: EPA 245.1 Rev 3.0 (1994)

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		1.0	µg/L	1.0	4/14/2016	4/15/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-149-16
Lab ID: 1604141-02E

Received: 4/8/2016
Collected: 4/7/2016 10:00

Test Name: EPA 8260B
Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		4/14/2016
Chloromethane	ND		0.50	µg/L	1.0		4/14/2016
Vinyl chloride	ND		0.50	µg/L	1.0		4/14/2016
Bromomethane	ND		0.50	µg/L	1.0		4/14/2016
Chloroethane	ND		0.50	µg/L	1.0		4/14/2016
Trichlorofluoromethane	ND		0.50	µg/L	1.0		4/14/2016
1,1-Dichloroethene	ND		0.50	µg/L	1.0		4/14/2016
Methylene chloride	ND		0.50	µg/L	1.0		4/14/2016
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		4/14/2016
Methyl tert-butyl ether (MTBE)	ND		0.50	µg/L	1.0		4/14/2016
Tert-butyl alcohol (TBA)	ND		10	µg/L	1.0		4/14/2016
Di-isopropyl ether (DIPE)	ND		1.0	µg/L	1.0		4/14/2016
1,1-Dichloroethane	ND		0.50	µg/L	1.0		4/14/2016
Ethyl tert-butyl ether (ETBE)	ND		1.0	µg/L	1.0		4/14/2016
cis-1,2-Dichloroethene	ND		0.50	µg/L	1.0		4/14/2016
2,2-Dichloropropane	ND		0.50	µg/L	1.0		4/14/2016
Bromochloromethane	ND		0.50	µg/L	1.0		4/14/2016
Chloroform	ND		0.50	µg/L	1.0		4/14/2016
Carbon Tetrachloride	ND		0.50	µg/L	1.0		4/14/2016
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		4/14/2016
1,1-Dichloropropene	ND		0.50	µg/L	1.0		4/14/2016
Benzene	ND		0.50	µg/L	1.0		4/14/2016
Tert-amyl methyl ether (TAME)	ND		0.50	µg/L	1.0		4/14/2016
1,2-Dichloroethane	ND		0.50	µg/L	1.0		4/14/2016
Trichloroethene	ND		0.50	µg/L	1.0		4/14/2016
Dibromomethane	ND		0.50	µg/L	1.0		4/14/2016
1,2-Dichloropropane	ND		1.0	µg/L	1.0		4/14/2016
Bromodichloromethane	ND		0.50	µg/L	1.0		4/14/2016
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		4/14/2016
Toluene	ND		0.50	µg/L	1.0		4/14/2016
Tetrachloroethene	ND		0.50	µg/L	1.0		4/14/2016
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		4/14/2016
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		4/14/2016
Dibromochloromethane	ND		0.50	µg/L	1.0		4/14/2016
1,3-Dichloropropane	ND		1.0	µg/L	1.0		4/14/2016
1,2-Dibromoethane (EDB)	ND		1.0	µg/L	1.0		4/14/2016
Chlorobenzene	ND		0.50	µg/L	1.0		4/14/2016
Ethylbenzene	ND		0.50	µg/L	1.0		4/14/2016
1,1,1,2-Tetrachloroethane	ND		0.50	µg/L	1.0		4/14/2016
m,p-Xylene	ND		0.50	µg/L	1.0		4/14/2016
o-Xylene	ND		0.50	µg/L	1.0		4/14/2016
Bromoform	ND		0.50	µg/L	1.0		4/14/2016
Styrene	ND		0.50	µg/L	1.0		4/14/2016
Isopropylbenzene	ND		0.50	µg/L	1.0		4/14/2016
Bromobenzene	ND		0.50	µg/L	1.0		4/14/2016
n-Propylbenzene	ND		0.50	µg/L	1.0		4/14/2016

Date: 25-Apr-2016
WorkOrder: 1604141

ANALYTICAL REPORT

Client Sample ID: 110-149-16 **Received:** 4/8/2016
Lab ID: 1604141-02E **Collected:** 4/7/2016 10:00

1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1.0	4/14/2016
2-Chlorotoluene	ND	0.50	µg/L	1.0	4/14/2016
1,2,3-Trichloropropane	ND	1.0	µg/L	1.0	4/14/2016
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1.0	4/14/2016
4-Chlorotoluene	ND	0.50	µg/L	1.0	4/14/2016
tert-Butylbenzene	ND	0.50	µg/L	1.0	4/14/2016
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1.0	4/14/2016
sec-Butylbenzene	ND	0.50	µg/L	1.0	4/14/2016
4-Isopropyltoluene	ND	0.50	µg/L	1.0	4/14/2016
1,3-Dichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
1,4-Dichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
n-Butylbenzene	ND	0.50	µg/L	1.0	4/14/2016
1,2-Dichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1.0	4/14/2016
Hexachlorobutadiene	ND	0.50	µg/L	1.0	4/14/2016
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
Naphthalene	ND	1.0	µg/L	1.0	4/14/2016
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1.0	4/14/2016
Surrogate: 1,2-Dichloroethane-d4	97.4	67.1-135	% Rec	1.0	4/14/2016
Surrogate: Dibromofluoromethane	99.8	81.2-125	% Rec	1.0	4/14/2016
Surrogate: Toluene-d8	96.7	84.2-118	% Rec	1.0	4/14/2016

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		50	µg/L	1.0		4/13/2016

North Coast Laboratories, Ltd.

Date: 4/25/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Method Blank

Sample ID **MB 041416** Batch ID: **R86258** Test Code: **8260EW** Units: **µg/L** Analysis Date **4/14/2016 9:04:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160414A** SeqNo: **1240480**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	0.50									
Chloromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Bromomethane	ND	0.50									
Chloroethane	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
Methylene chloride	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Tert-butyl alcohol (TBA)	ND	10									
Di-isopropyl ether (DIPE)	ND	1.0									
1,1-Dichloroethane	ND	0.50									
Ethyl tert-butyl ether (ETBE)	ND	1.0									
cis-1,2-Dichloroethene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
Bromochloromethane	ND	0.50									
Chloroform	ND	0.50									
Carbon Tetrachloride	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1-Dichloropropene	ND	0.50									
Benzene	ND	0.50									
Tert-amyl methyl ether (TAME)	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
Dibromomethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
Bromodichloromethane	ND	0.50									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Method Blank

cis-1,3-Dichloropropene	ND	1.0
Toluene	ND	0.50
Tetrachloroethene	ND	0.50
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	0.50
Dibromochloromethane	ND	0.50
1,3-Dichloropropane	ND	1.0
1,2-Dibromoethane (EDB)	ND	1.0
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
1,1,1,2-Tetrachloroethane	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Bromoform	ND	0.50
Styrene	ND	0.50
Isopropylbenzene	ND	0.50
Bromobenzene	ND	0.50
n-Propylbenzene	ND	0.50
1,1,2,2-Tetrachloroethane	ND	0.50
2-Chlorotoluene	ND	0.50
1,2,3-Trichloropropane	ND	1.0
1,3,5-Trimethylbenzene	ND	0.50
4-Chlorotoluene	ND	0.50
tert-Butylbenzene	ND	0.50
1,2,4-Trimethylbenzene	ND	0.50
sec-Butylbenzene	ND	0.50
4-Isopropyltoluene	ND	0.50
1,3-Dichlorobenzene	ND	0.50
1,4-Dichlorobenzene	ND	0.50
n-Butylbenzene	ND	0.50
1,2-Dichlorobenzene	ND	0.50
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0
Hexachlorobutadiene	ND	0.50
1,2,4-Trichlorobenzene	ND	0.50

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Method Blank

Naphthalene	ND	1.0							
1,2,3-Trichlorobenzene	ND	0.50							
Surrogate: Dibromofluoromethane	1.03	0.10	1.00	0	103%	81	125	0	
Surrogate: 1,2-Dichloroethane-d4	0.996	0.10	1.00	0	99.6%	67	135	0	
Surrogate: Toluene-d8	0.968	0.10	1.00	0	96.8%	84	118	0	

Sample ID **MBLK 041116** Batch ID: **R86213** Test Code: **CODW** Units: **mg/L** Analysis Date **4/12/2016** Prep Date **4/11/2016**
Client ID: Run ID: **WC_160412D** SeqNo: **1239998**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	5.0									

Sample ID **MB 041216** Batch ID: **R86233** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **4/13/2016 12:07:00 PM** Prep Date
Client ID: Run ID: **ORGCMS3_160413A** SeqNo: **1240213**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	ND	50									

Sample ID **MB-040816** Batch ID: **R86216** Test Code: **ICIONW** Units: **mg/L** Analysis Date **4/8/2016 6:30:13 PM** Prep Date
Client ID: Run ID: **INIC2_160408A** SeqNo: **1240029**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.10									
Fluoride	ND	0.10									
Sulfate	ND	0.50									

Sample ID **MB-040816** Batch ID: **R86217** Test Code: **ICNOW** Units: **mg/L** Analysis Date **4/8/2016 6:30:13 PM** Prep Date
Client ID: Run ID: **INIC2_160408B** SeqNo: **1240042**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	ND	0.10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-33200** Batch ID: **33200** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **4/15/2016 9:41:14 AM** Prep Date **4/8/2016**
Client ID: Run ID: **ICPMS2_160415A** SeqNo: **1240749**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	20									
Arsenic	ND	5.0									
Barium	ND	5.0									
Beryllium	ND	1.0									
Cadmium	ND	5.0									
Chromium	ND	5.0									
Cobalt	ND	5.0									
Lead	ND	5.0									
Molybdenum	ND	5.0									
Nickel	ND	5.0									
Silver	ND	5.0									
Thallium	ND	5.0									
Vanadium	ND	5.0									
Zinc	ND	10									

Sample ID **MB-33200** Batch ID: **33200** Test Code: **ICPX** Units: **µg/L** Analysis Date **4/13/2016 1:05:55 PM** Prep Date **4/8/2016**
Client ID: Run ID: **INICP2_160413B** SeqNo: **1240633**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	ND	20									
Iron	ND	15									
Magnesium	ND	20									
Manganese	ND	1.0									
Potassium	ND	10									
Sodium	ND	20									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-33211** Batch ID: **33211** Test Code: **MERCW** Units: **µg/L** Analysis Date **4/15/2016 9:44:36 AM** Prep Date **4/14/2016**
Client ID: Run ID: **CVAA1_160415A** SeqNo: **1240614**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1.0									

Sample ID **MBLK** Batch ID: **R86289** Test Code: **TDS** Units: **mg/L** Analysis Date **4/13/2016 8:00:00 AM** Prep Date
Client ID: Run ID: **WC_160413K** SeqNo: **1240962**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 4/25/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **1604141-01CMS** Batch ID: **33200** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **4/15/2016 9:57:41 AM** Prep Date **4/8/2016**

Client ID: **110-140-24 (Dissolved)** Run ID: **ICPMS2_160415A** SeqNo: **1240752**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	909.4	100	1,000	13.8	89.6%	70	130	0			
Arsenic	987.8	25	1,000	0	98.8%	70	130	0			
Barium	918.9	25	1,000	1.57	91.7%	70	130	0			
Beryllium	942.7	5.0	1,000	0	94.3%	70	130	0			
Cadmium	969.1	25	1,000	0	96.9%	70	130	0			
Chromium	901.5	25	1,000	0	90.1%	70	130	0			
Cobalt	895.4	25	1,000	0	89.5%	70	130	0			
Lead	965.1	25	1,000	0.0330	96.5%	70	130	0			
Molybdenum	1,002	25	1,000	0	100%	70	130	0			
Nickel	897.8	25	1,000	0	89.8%	70	130	0			
Silver	115.5	25	125	0	92.4%	70	130	0			
Thallium	963.7	25	1,000	0.0980	96.4%	70	130	0			
Vanadium	919.6	25	1,000	0	92.0%	70	130	0			
Zinc	955.7	50	1,000	21.8	93.4%	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID **1604141-01CMSD** Batch ID: **33200** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **4/15/2016 10:01:48 AM** Prep Date **4/8/2016**
Client ID: **110-140-24 (Dissolved)** Run ID: **ICPMS2_160415A** SeqNo: **1240753**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	905.1	100	1,000	13.8	89.1%	70	130	909	0.464%	20	
Arsenic	996.1	25	1,000	0	99.6%	70	130	988	0.829%	20	
Barium	910.6	25	1,000	1.57	90.9%	70	130	919	0.901%	20	
Beryllium	942.4	5.0	1,000	0	94.2%	70	130	943	0.0295%	20	
Cadmium	965.3	25	1,000	0	96.5%	70	130	969	0.397%	20	
Chromium	894.9	25	1,000	0	89.5%	70	130	902	0.737%	20	
Cobalt	904.2	25	1,000	0	90.4%	70	130	895	0.971%	20	
Lead	972.9	25	1,000	0.0330	97.3%	70	130	965	0.808%	20	
Molybdenum	1,032	25	1,000	0	103%	70	130	1,000	3.03%	20	
Nickel	902.0	25	1,000	0	90.2%	70	130	898	0.470%	20	
Silver	118.4	25	125	0	94.7%	70	130	116	2.42%	20	
Thallium	950.7	25	1,000	0.0980	95.1%	70	130	964	1.36%	20	
Vanadium	921.2	25	1,000	0	92.1%	70	130	920	0.173%	20	
Zinc	961.5	50	1,000	21.8	94.0%	70	130	956	0.604%	20	

Sample ID **1604141-01CMS** Batch ID: **33200** Test Code: **ICPX** Units: **µg/L** Analysis Date **4/13/2016 1:17:00 PM** Prep Date **4/8/2016**
Client ID: **110-140-24 (Dissolved)** Run ID: **INICP2_160413B** SeqNo: **1240637**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	885.1	15	1,000	21.5	86.4%	70	130	0			
Manganese	919.1	1.0	1,000	14.2	90.5%	70	130	0			
Potassium	6,463	10	5,000	614	117%	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID **1604141-01CMSD** Batch ID: **33200** Test Code: **ICPX** Units: **µg/L** Analysis Date **4/13/2016 1:25:05 PM** Prep Date **4/8/2016**

Client ID: **110-140-24 (Dissolved)** Run ID: **INICP2_160413B** SeqNo: **1240640**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	890.3	15	1,000	21.5	86.9%	70	130	885	0.582%	20	
Manganese	938.6	1.0	1,000	14.2	92.4%	70	130	919	2.10%	20	
Potassium	6,471	10	5,000	614	117%	70	130	6,460	0.132%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 4/25/2016

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-16134** Batch ID: **R86258** Test Code: **8260EW** Units: **µg/L** Analysis Date **4/14/2016 6:45:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160414A** SeqNo: **1240477**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	14.59	0.50	20.0	0	72.9%	25	156	0			
Chloromethane	15.45	0.50	20.0	0	77.2%	27	165	0			
Vinyl chloride	15.97	0.50	20.0	0	79.8%	53	143	0			
Bromomethane	15.66	0.50	20.0	0	78.3%	24	166	0			
Chloroethane	16.75	0.50	20.0	0	83.8%	59	144	0			
Trichlorofluoromethane	16.71	0.50	20.0	0	83.5%	53	136	0			
1,1-Dichloroethene	15.98	0.50	20.0	0	79.9%	65	117	0			
Methylene chloride	17.22	0.50	20.0	0	86.1%	54	121	0			
trans-1,2-Dichloroethene	16.49	0.50	20.0	0	82.4%	71	123	0			
Methyl tert-butyl ether (MTBE)	17.54	0.50	20.0	0	87.7%	71	130	0			
Tert-butyl alcohol (TBA)	256.3	10	400	0	64.1%	17	154	0			
Di-isopropyl ether (DIPE)	18.17	1.0	20.0	0	90.8%	74	125	0			
1,1-Dichloroethane	17.26	0.50	20.0	0	86.3%	80	117	0			
Ethyl tert-butyl ether (ETBE)	17.95	1.0	20.0	0	89.8%	63	129	0			
cis-1,2-Dichloroethene	17.54	0.50	20.0	0	87.7%	63	136	0			
2,2-Dichloropropane	15.43	0.50	20.0	0	77.1%	65	159	0			
Bromochloromethane	18.32	0.50	20.0	0	91.6%	65	126	0			
Chloroform	17.45	0.50	20.0	0	87.3%	69	119	0			
Carbon Tetrachloride	17.08	0.50	20.0	0	85.4%	61	141	0			
1,1,1-Trichloroethane	17.41	0.50	20.0	0	87.0%	79	119	0			
1,1-Dichloropropene	16.65	0.50	20.0	0	83.3%	81	119	0			
Benzene	17.36	0.50	20.0	0	86.8%	83	115	0			
Tert-amyl methyl ether (TAME)	17.80	0.50	20.0	0	89.0%	61	127	0			
1,2-Dichloroethane	17.80	0.50	20.0	0	89.0%	78	117	0			
Trichloroethene	16.89	0.50	20.0	0	84.5%	72	123	0			
Dibromomethane	18.42	0.50	20.0	0	92.1%	63	118	0			
1,2-Dichloropropane	17.58	1.0	20.0	0	87.9%	84	112	0			
Bromodichloromethane	18.46	0.50	20.0	0	92.3%	64	131	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike

cis-1,3-Dichloropropene	18.55	1.0	20.0	0	92.8%	63	138	0
Toluene	17.34	0.50	20.0	0	86.7%	85	117	0
Tetrachloroethene	17.77	0.50	20.0	0	88.8%	60	133	0
trans-1,3-Dichloropropene	16.70	1.0	20.0	0	83.5%	58	129	0
1,1,2-Trichloroethane	18.24	0.50	20.0	0	91.2%	76	117	0
Dibromochloromethane	16.51	0.50	20.0	0	82.6%	67	122	0
1,3-Dichloropropane	18.35	1.0	20.0	0	91.7%	76	112	0
1,2-Dibromoethane (EDB)	21.38	1.0	20.0	0	107%	77	112	0
Chlorobenzene	17.50	0.50	20.0	0	87.5%	74	115	0
Ethylbenzene	17.64	0.50	20.0	0	88.2%	73	117	0
1,1,1,2-Tetrachloroethane	18.09	0.50	20.0	0	90.4%	77	113	0
m,p-Xylene	32.19	0.50	40.0	0	80.5%	77	116	0
o-Xylene	17.33	0.50	20.0	0	86.7%	84	122	0
Bromoform	18.17	0.50	20.0	0	90.9%	61	121	0
Styrene	18.24	0.50	20.0	0	91.2%	79	122	0
Isopropylbenzene	16.61	0.50	20.0	0	83.1%	45	132	0
Bromobenzene	17.90	0.50	20.0	0	89.5%	77	121	0
n-Propylbenzene	17.68	0.50	20.0	0	88.4%	81	128	0
1,1,2,2-Tetrachloroethane	17.92	0.50	20.0	0	89.6%	62	119	0
2-Chlorotoluene	17.68	0.50	20.0	0	88.4%	79	115	0
1,2,3-Trichloropropane	18.21	1.0	20.0	0	91.0%	65	116	0
1,3,5-Trimethylbenzene	17.24	0.50	20.0	0	86.2%	80	121	0
4-Chlorotoluene	18.04	0.50	20.0	0	90.2%	80	115	0
tert-Butylbenzene	16.97	0.50	20.0	0	84.9%	78	123	0
1,2,4-Trimethylbenzene	17.73	0.50	20.0	0	88.7%	81	124	0
sec-Butylbenzene	16.55	0.50	20.0	0	82.7%	78	124	0
4-Isopropyltoluene	16.88	0.50	20.0	0	84.4%	80	128	0
1,3-Dichlorobenzene	18.05	0.50	20.0	0	90.3%	87	113	0
1,4-Dichlorobenzene	17.56	0.50	20.0	0	87.8%	84	107	0
n-Butylbenzene	16.71	0.50	20.0	0	83.6%	75	127	0
1,2-Dichlorobenzene	17.80	0.50	20.0	0	89.0%	84	107	0
1,2-Dibromo-3-chloropropane (DBCP)	14.78	2.0	20.0	0	73.9%	33	160	0
Hexachlorobutadiene	16.68	0.50	20.0	0	83.4%	49	149	0
1,2,4-Trichlorobenzene	17.70	0.50	20.0	0	88.5%	70	136	0

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike

Naphthalene	17.05	1.0	20.0	0	85.3%	48	139	0
1,2,3-Trichlorobenzene	16.64	0.50	20.0	0	83.2%	49	158	0
Surrogate: Dibromofluoromethane	1.04	0.10	1.00	0	104%	81	125	0
Surrogate: 1,2-Dichloroethane-d4	0.988	0.10	1.00	0	98.8%	67	135	0
Surrogate: Toluene-d8	1.01	0.10	1.00	0	102%	84	118	0

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-16134** Batch ID: **R86258** Test Code: **8260EW** Units: **µg/L** Analysis Date **4/14/2016 7:13:00 PM** Prep Date

Client ID: Run ID: **ORGCMS2_160414A** SeqNo: **1240478**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	14.49	0.50	20.0	0	72.4%	25	156	14.6	0.704%	30	
Chloromethane	16.49	0.50	20.0	0	82.5%	27	165	15.4	6.52%	30	
Vinyl chloride	16.57	0.50	20.0	0	82.8%	53	143	16.0	3.67%	30	
Bromomethane	17.20	0.50	20.0	0	86.0%	24	166	15.7	9.37%	30	
Chloroethane	17.42	0.50	20.0	0	87.1%	59	144	16.8	3.91%	30	
Trichlorofluoromethane	16.61	0.50	20.0	0	83.1%	53	136	16.7	0.567%	30	
1,1-Dichloroethene	16.01	0.50	20.0	0	80.1%	65	117	16.0	0.189%	30	
Methylene chloride	17.78	0.50	20.0	0	88.9%	54	121	17.2	3.20%	30	
trans-1,2-Dichloroethene	16.82	0.50	20.0	0	84.1%	71	123	16.5	2.00%	30	
Methyl tert-butyl ether (MTBE)	18.27	0.50	20.0	0	91.3%	71	130	17.5	4.09%	30	
Tert-butyl alcohol (TBA)	424.4	10	400	0	106%	17	154	256	49.4%	30	R
Di-isopropyl ether (DIPE)	18.67	1.0	20.0	0	93.3%	74	125	18.2	2.72%	30	
1,1-Dichloroethane	17.67	0.50	20.0	0	88.3%	80	117	17.3	2.35%	30	
Ethyl tert-butyl ether (ETBE)	18.81	1.0	20.0	0	94.0%	63	129	18.0	4.66%	30	
cis-1,2-Dichloroethene	17.92	0.50	20.0	0	89.6%	63	136	17.5	2.16%	30	
2,2-Dichloropropane	15.37	0.50	20.0	0	76.8%	65	159	15.4	0.368%	30	
Bromochloromethane	19.01	0.50	20.0	0	95.1%	65	126	18.3	3.70%	30	
Chloroform	17.81	0.50	20.0	0	89.1%	69	119	17.4	2.06%	30	
Carbon Tetrachloride	16.74	0.50	20.0	0	83.7%	61	141	17.1	1.99%	30	
1,1,1-Trichloroethane	17.11	0.50	20.0	0	85.5%	79	119	17.4	1.75%	30	
1,1-Dichloropropene	16.43	0.50	20.0	0	82.1%	81	119	16.6	1.37%	30	
Benzene	17.76	0.50	20.0	0	88.8%	83	115	17.4	2.25%	30	
Tert-amyl methyl ether (TAME)	18.57	0.50	20.0	0	92.8%	61	127	17.8	4.21%	30	
1,2-Dichloroethane	18.21	0.50	20.0	0	91.1%	78	117	17.8	2.26%	30	
Trichloroethene	17.68	0.50	20.0	0	88.4%	72	123	16.9	4.55%	30	
Dibromomethane	19.03	0.50	20.0	0	95.1%	63	118	18.4	3.22%	30	
1,2-Dichloropropane	18.31	1.0	20.0	0	91.5%	84	112	17.6	4.02%	30	
Bromodichloromethane	18.83	0.50	20.0	0	94.2%	64	131	18.5	1.99%	30	
cis-1,3-Dichloropropene	19.15	1.0	20.0	0	95.7%	63	138	18.6	3.14%	30	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Toluene	17.73	0.50	20.0	0	88.6%	85	117	17.3	2.21%	30	
Tetrachloroethene	18.55	0.50	20.0	0	92.8%	60	133	17.8	4.33%	30	
trans-1,3-Dichloropropene	17.34	1.0	20.0	0	86.7%	58	129	16.7	3.78%	30	
1,1,2-Trichloroethane	19.13	0.50	20.0	0	95.7%	76	117	18.2	4.75%	30	
Dibromochloromethane	17.76	0.50	20.0	0	88.8%	67	122	16.5	7.29%	30	
1,3-Dichloropropane	19.49	1.0	20.0	0	97.5%	76	112	18.4	6.07%	30	
1,2-Dibromoethane (EDB)	22.53	1.0	20.0	0	113%	77	112	21.4	5.24%	30	S
Chlorobenzene	18.37	0.50	20.0	0	91.9%	74	115	17.5	4.89%	30	
Ethylbenzene	18.70	0.50	20.0	0	93.5%	73	117	17.6	5.86%	30	
1,1,1,2-Tetrachloroethane	18.86	0.50	20.0	0	94.3%	77	113	18.1	4.20%	30	
m,p-Xylene	34.30	0.50	40.0	0	85.7%	77	116	32.2	6.34%	30	
o-Xylene	18.24	0.50	20.0	0	91.2%	84	122	17.3	5.07%	30	
Bromoform	19.35	0.50	20.0	0	96.8%	61	121	18.2	6.31%	30	
Styrene	19.20	0.50	20.0	0	96.0%	79	122	18.2	5.08%	30	
Isopropylbenzene	17.88	0.50	20.0	0	89.4%	45	132	16.6	7.38%	30	
Bromobenzene	19.07	0.50	20.0	0	95.3%	77	121	17.9	6.32%	30	
n-Propylbenzene	18.57	0.50	20.0	0	92.9%	81	128	17.7	4.95%	30	
1,1,2,2-Tetrachloroethane	19.67	0.50	20.0	0	98.4%	62	119	17.9	9.35%	30	
2-Chlorotoluene	18.67	0.50	20.0	0	93.4%	79	115	17.7	5.50%	30	
1,2,3-Trichloropropane	19.61	1.0	20.0	0	98.0%	65	116	18.2	7.41%	30	
1,3,5-Trimethylbenzene	18.26	0.50	20.0	0	91.3%	80	121	17.2	5.71%	30	
4-Chlorotoluene	18.75	0.50	20.0	0	93.8%	80	115	18.0	3.86%	30	
tert-Butylbenzene	17.84	0.50	20.0	0	89.2%	78	123	17.0	4.95%	30	
1,2,4-Trimethylbenzene	18.44	0.50	20.0	0	92.2%	81	124	17.7	3.91%	30	
sec-Butylbenzene	17.45	0.50	20.0	0	87.2%	78	124	16.6	5.32%	30	
4-Isopropyltoluene	17.78	0.50	20.0	0	88.9%	80	128	16.9	5.19%	30	
1,3-Dichlorobenzene	19.04	0.50	20.0	0	95.2%	87	113	18.0	5.30%	30	
1,4-Dichlorobenzene	18.21	0.50	20.0	0	91.1%	84	107	17.6	3.63%	30	
n-Butylbenzene	17.55	0.50	20.0	0	87.8%	75	127	16.7	4.92%	30	
1,2-Dichlorobenzene	18.95	0.50	20.0	0	94.7%	84	107	17.8	6.22%	30	
1,2-Dibromo-3-chloropropane (DBCP)	19.01	2.0	20.0	0	95.0%	33	160	14.8	25.0%	30	
Hexachlorobutadiene	18.67	0.50	20.0	0	93.3%	49	149	16.7	11.3%	30	
1,2,4-Trichlorobenzene	19.58	0.50	20.0	0	97.9%	70	136	17.7	10.0%	30	
Naphthalene	20.56	1.0	20.0	0	103%	48	139	17.0	18.7%	30	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

1,2,3-Trichlorobenzene	19.74	0.50	20.0	0	98.7%	49	158	16.6	17.0%	30
Surrogate: Dibromofluoromethane	0.994	0.10	1.00	0	99.4%	81	125	1.04	4.81%	30
Surrogate: 1,2-Dichloroethane-d4	0.988	0.10	1.00	0	98.8%	67	135	0.988	0.0202%	30
Surrogate: Toluene-d8	1.01	0.10	1.00	0	101%	84	118	1.01	0.0493%	30

Sample ID **LCS WL- 0411160** Batch ID: **R86213** Test Code: **CODW** Units: **mg/L** Analysis Date **4/12/2016** Prep Date **4/11/2016**
Client ID: Run ID: **WC_160412D** SeqNo: **1239999**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	55.86	5.0	50.0	0	112%	85	115	0			

Sample ID **LCSD WL- 041116** Batch ID: **R86213** Test Code: **CODW** Units: **mg/L** Analysis Date **4/12/2016** Prep Date **4/11/2016**
Client ID: Run ID: **WC_160412D** SeqNo: **1240000**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	53.79	5.0	50.0	0	108%	85	115	55.9	3.77%	20	

Sample ID **LCS-16130** Batch ID: **R86233** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **4/13/2016 8:03:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_160413A** SeqNo: **1240211**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,191	50	1,000	0	119%	74	126	0			

Sample ID **LCSD-16130** Batch ID: **R86233** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **4/13/2016 8:32:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_160413A** SeqNo: **1240212**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,055	50	1,000	0	105%	74	126	1,190	12.1%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS WL-040816-0** Batch ID: **R86216** Test Code: **ICIONW** Units: **mg/L** Analysis Date **4/8/2016 6:47:51 PM** Prep Date
Client ID: Run ID: **INIC2_160408A** SeqNo: **1240030**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.9702	0.10	1.00	0	97.0%	90	110	0			
Fluoride	0.9277	0.10	1.00	0	92.8%	90	110	0			
Sulfate	9.875	0.50	10.0	0	98.7%	90	110	0			

Sample ID **LCSD WL-040816-** Batch ID: **R86216** Test Code: **ICIONW** Units: **mg/L** Analysis Date **4/8/2016 7:05:28 PM** Prep Date
Client ID: Run ID: **INIC2_160408A** SeqNo: **1240031**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.9705	0.10	1.00	0	97.0%	90	110	0.970	0.0319%	10	
Fluoride	0.9409	0.10	1.00	0	94.1%	90	110	0.928	1.41%	10	
Sulfate	9.869	0.50	10.0	0	98.7%	90	110	9.88	0.0602%	10	

Sample ID **LCS WL-040816-0** Batch ID: **R86217** Test Code: **ICNOW** Units: **mg/L** Analysis Date **4/8/2016 6:47:51 PM** Prep Date
Client ID: Run ID: **INIC2_160408B** SeqNo: **1240043**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	0.9797	0.10	1.00	0	98.0%	90	110	0			

Sample ID **LCSD WL-040816-** Batch ID: **R86217** Test Code: **ICNOW** Units: **mg/L** Analysis Date **4/8/2016 7:05:28 PM** Prep Date
Client ID: Run ID: **INIC2_160408B** SeqNo: **1240044**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as Nitrogen)	0.9793	0.10	1.00	0	97.9%	90	110	0.980	0.0384%	10	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-33200** Batch ID: **33200** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **4/15/2016 9:45:21 AM** Prep Date **4/8/2016**

Client ID: Run ID: **ICPMS2_160415A** SeqNo: **1240750**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	472.7	100	500	0	94.5%	85	115	0			
Arsenic	508.6	25	500	2.44	101%	85	115	0			
Barium	470.0	25	500	0	94.0%	85	115	0			
Beryllium	476.8	5.0	500	0	95.4%	85	115	0			
Cadmium	499.8	25	500	0	100%	85	115	0			
Chromium	453.6	25	500	0	90.7%	85	115	0			
Cobalt	465.5	25	500	0	93.1%	85	115	0			
Lead	488.3	25	500	0	97.7%	85	115	0			
Molybdenum	535.2	25	500	0.160	107%	85	115	0			
Nickel	463.5	25	500	0	92.7%	85	115	0			
Silver	66.24	25	62.5	0	106%	85	115	0			
Thallium	483.2	25	500	0	96.6%	85	115	0			
Vanadium	466.5	25	500	0	93.3%	85	115	0			
Zinc	477.7	50	500	0	95.5%	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-33200** Batch ID: **33200** Test Code: **ICPMSW** Units: **µg/L** Analysis Date **4/15/2016 9:49:28 AM** Prep Date **4/8/2016**
Client ID: Run ID: **ICPMS2_160415A** SeqNo: **1240751**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	473.4	100	500	0	94.7%	85	115	473	0.160%	20	
Arsenic	515.0	25	500	2.44	103%	85	115	509	1.26%	20	
Barium	463.4	25	500	0	92.7%	85	115	470	1.41%	20	
Beryllium	478.0	5.0	500	0	95.6%	85	115	477	0.256%	20	
Cadmium	492.7	25	500	0	98.5%	85	115	500	1.43%	20	
Chromium	445.8	25	500	0	89.2%	85	115	454	1.75%	20	
Cobalt	455.3	25	500	0	91.1%	85	115	466	2.20%	20	
Lead	491.5	25	500	0	98.3%	85	115	488	0.652%	20	
Molybdenum	528.4	25	500	0.160	106%	85	115	535	1.29%	20	
Nickel	465.3	25	500	0	93.1%	85	115	464	0.397%	20	
Silver	65.73	25	62.5	0	105%	85	115	66.2	0.782%	20	
Thallium	486.2	25	500	0	97.2%	85	115	483	0.620%	20	
Vanadium	458.4	25	500	0	91.7%	85	115	466	1.76%	20	
Zinc	459.4	50	500	0	91.9%	85	115	478	3.91%	20	

Sample ID **LCS-33200** Batch ID: **33200** Test Code: **ICPX** Units: **µg/L** Analysis Date **4/13/2016 1:07:36 PM** Prep Date **4/8/2016**
Client ID: Run ID: **INICP2_160413B** SeqNo: **1240634**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	449.6	20	500	0	89.9%	85	115	0			
Iron	440.6	15	500	0	88.1%	85	115	0			
Magnesium	451.0	20	500	0	90.2%	85	115	0			
Manganese	491.6	1.0	500	0	98.3%	85	115	0			
Potassium	2,301	10	2,500	0	92.0%	85	115	0			
Sodium	473.1	20	500	0	94.6%	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Del Norte Solid Waste Authority
Work Order: 1604141
Project: Residential Well Sampling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-33200** Batch ID: **33200** Test Code: **ICPX** Units: **µg/L** Analysis Date **4/13/2016 1:10:59 PM** Prep Date **4/8/2016**
Client ID: Run ID: **INICP2_160413B** SeqNo: **1240635**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	439.2	20	500	0	87.8%	85	115	450	2.34%	20	
Iron	436.7	15	500	0	87.3%	85	115	441	0.897%	20	
Magnesium	446.6	20	500	0	89.3%	85	115	451	0.974%	20	
Manganese	486.0	1.0	500	0	97.2%	85	115	492	1.14%	20	
Potassium	2,297	10	2,500	0	91.9%	85	115	2,300	0.150%	20	
Sodium	473.1	20	500	0	94.6%	85	115	473	0.00380%	20	

Sample ID **LCS-33211** Batch ID: **33211** Test Code: **MERCW** Units: **µg/L** Analysis Date **4/15/2016 9:45:46 AM** Prep Date **4/14/2016**
Client ID: Run ID: **CVAA1_160415A** SeqNo: **1240615**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.140	1.0	5.00	0	103%	85	115	0			

Sample ID **LCSD-33211** Batch ID: **33211** Test Code: **MERCW** Units: **µg/L** Analysis Date **4/15/2016 9:46:56 AM** Prep Date **4/14/2016**
Client ID: Run ID: **CVAA1_160415A** SeqNo: **1240616**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.110	1.0	5.00	0	102%	85	115	5.14	0.585%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

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WORK ORDER NUMBER: 16-04-0897

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: North Coast Laboratories, Ltd.

Client Project Name: 1604141

Attention: Trudie Blasi
5680 West End Road
Arcata, CA 95521-9202

Approved for release on 04/19/2016 by:
Lori Thompson
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 16-04-0897

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Work Order Narrative

Work Order: 16-04-0897 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/14/16. They were assigned to Work Order 16-04-0897.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	North Coast Laboratories, Ltd. 5680 West End Road Arcata, CA 95521-9202	Work Order:	16-04-0897
		Project Name:	1604141
		PO Number:	1604141
		Date/Time Received:	04/14/16 11:00
		Number of Containers:	2
Attn:	Trudie Blasi		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
1604141-01D / 110-140-24 (Dissolved)	16-04-0897-1	04/07/16 09:30	1	Aqueous
1604141-02D / 110-149-16 (Dissolved)	16-04-0897-2	04/07/16 10:00	1	Aqueous

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Analytical Report

North Coast Laboratories, Ltd.		Date Received:	04/14/16
5680 West End Road		Work Order:	16-04-0897
Arcata, CA 95521-9202		Preparation:	Filtered
		Method:	EPA 200.8
		Units:	ug/L
Project: 1604141			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
1604141-01D / 110-140-24 (Dissolved)	**16-04-0897-1-A**	**04/07/16 09:30**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 23:14**	**160415LA3F**

Parameter	Result	RL	DF	Qualifiers
Tin	ND	1.00	1.00	

1604141-02D / 110-149-16 (Dissolved)	**16-04-0897-2-A**	**04/07/16 10:00**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 23:17**	**160415LA3F**

Parameter	Result	RL	DF	Qualifiers
Tin	ND	1.00	1.00	

Method Blank	**099-16-094-1305**	**N/A**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 22:36**	**160415LA3F**

Parameter	Result	RL	DF	Qualifiers
Tin	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

North Coast Laboratories, Ltd.		Date Received:	04/14/16
5680 West End Road		Work Order:	16-04-0897
Arcata, CA 95521-9202		Preparation:	N/A
		Method:	EPA 200.8
Project: 1604141			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0901-1	**Sample**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 22:54**	**160415SA3**
16-04-0901-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 22:41**	**160415SA3**
16-04-0901-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 22:44**	**160415SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tin	ND	100.0	104.5	105	108.0	108	80-120	3	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

North Coast Laboratories, Ltd.		Date Received:	04/14/16
5680 West End Road		Work Order:	16-04-0897
Arcata, CA 95521-9202		Preparation:	Filtered
		Method:	EPA 200.8
Project: 1604141			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-094-1305	**LCS**	**Aqueous**	**ICP/MS 03**	**04/15/16**	**04/15/16 22:39**	**160415LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Tin	100.0	103.5	104	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-04-0897 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.8	Filtered	598	ICP/MS 03	1

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Glossary of Terms and Qualifiers

Work Order: 16-04-0897 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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NORTH COAST LABORATORIES LTD.

Sub-Contract Chain of Custody Record

Date Shipped: 4/12/2016
PO #: 1604141

Subcontractor: Calscience Enironmental Labs
7440 Lincoln Way
Garden Grove, CA 92841

Attn: SAMPLE RECEIVING 714 895-5494

Send Results to: North Coast Labs
5680 West End Road
Arcata, CA 95521
(707) 822-4649

Attn: Trudie Blasi, tblasi@northcoastlabs.com

16-04-0897

NCL Sample # / Sample ID	Collection Date / Bottle	Matrix	State Form System / Source	Sampler / Employer	Analysis / Remarks
1 **1604141-01D** 110-140-24 (Dissolved)	4/07/2016 09:30 am 250 mL HDPE, preserved HNO3 to pH <	Groundwater			Tin
2 **1604141-02D** 110-149-16 (Dissolved)	4/07/2016 10:00 am 250 mL HDPE, preserved HNO3 to pH <	Groundwater			Tin

		Date/Time			Date/Time
Relinquished by:	[signature]	4/12/16 1011	**Received by:**		
Relinquished by:			**Received by:**	[signature]	4/14/16 1100

Special Instructions: Please include NCL Sample #, Sample ID, and QC data on all analytical work; include PO # on invoice.

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FROM:
(707) 822-4649
SHIPPING / RECEIVING
NORTH COAST LABORATORIES LTD.
5680 WEST END ROAD
ARCATA CA 95521
US
SHIP DAT
ACTWGT: 3.0 LB MAN
CAD: 0311778/CAFE2805
BILL SENDER
TO SAMPLE RECEIVING
CALSCIENCE ENVIRONMENTAL LABS
7440 LINCOLN WAY
GARDEN GROVE CA 92841
(US)
(530) 244-5227
REF:
INV:
PO:
DEPT:
FedEx Ground
TRK# 6586 4168 2027
92841
9622 0019 0 (000 095 5081) 9 00 6586 4168 2027
Part # 156148-434 RITZ 09/13

0897

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WORK ORDER NUMBER: 16-04- 0897

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: North Coast

DATE: 04 / 14 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 18.4 °C (w/ CF): 18.4 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 1S

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1S
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1053

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB ☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s** ☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: TJ8

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NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 1604141

Attention: Trudi Blasi
Results & Invoice to: Del Norte Solid Waste Mgmt. Authority
Address: 1700 State Street
Crescent City, CA 95531
Phone: (707) 465-1100
Copies of Report to: Gina Morrison, NCRWQCB
Howard Moya, D.N.C. Environmental Health
Sampler (Sign & Print): Kayleen Warner Kayleen Warner

PROJECT INFORMATION
Project Number:
Project Name: Residential Well Sampling
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	ANALYSIS: COD	Minerals	Dissolved metals plus Fe	EPA 8260 plus gasoline
	110-140-24	4/7/16	9:30AM	GW/DW			X	X	X	X
	110-140-16	4/7/16	10:00AM	↓			X	X	X	X

TAT: ☒ STD (2-3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:
☐ State Forms
☐ Geotracker ☐ SWAMP ☐ Other EDD:
☒ Final Report PDF ☐ FAX By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other
PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SPECIAL INSTRUCTIONS	SAMPLE CONDITION
SC °F pH Sal TDS	Temperature 16 °C
210 62.3 7.73 99 149	
	Received On Ice? Y/N
385 57.7 7.85 178 271	Samples Intact? Y/N
	Preserved? Y/N
Filter all samples before testing for metals	Preserved @ NCL? Y/N/NA

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Kayleen Warner / Kayleen Warner	1:00 4/8/16	[signature]	8:00 4/8
			4/8/16
			950

SAMPLE DISPOSAL
☒ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Fed-Ex Hand Efficiency

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Table 1. Proposed Groundwater Monitoring for Neighboring Wells

Constituent	Units	Frequency
Specific Conductance	umhos/cm	Semiannual
pH	pH Units	Semiannual
Total Dissolved Solids	mg/L	Semiannual
Chloride	mg/L	Semiannual
VOC	µg/L	Semiannual
Chemical Oxygen Demand	mg/L	Semiannual
Total Alkalinity	mg/L	Semiannual
Bicarbonate/Carbonate	mg/L	Semiannual
Fluoride	mL/L	Semiannual
Hardness	mg/L	Semiannual
Nitrate	mg/L	Semiannual
Sulfate	mg/L	Semiannual
Sodium, Potassium, Calcium, Magnesium	mg/L	Semiannual
Metals*	µg/L	Semiannual

*Metals = Aluminum, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Chromium, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Silver, Thallium, Tin, Vanadium, Zinc

no cu.

ATTACHMENT B

HISTORICAL DATA TABLES

(ON CD or emailed as zip file)

CHANGE ORDER 2

CONTRACT: **PROFESSIONAL SERVICES AGREEMENT**
PROJECT: **CRESCENT CITY LANDFILL ENVIRONMENTAL SERVICES**

CONTRACTOR: **LAWRENCE & ASSOCIATES**
AGENCY: **DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY**
SUBJECT: **CONTINUING PROFESSIONAL SERVICES**

NATURE OF CHANGES: This Change Order adds Tasks C, D and E to the Scope of Services. Under this Change Order, CONTRACTOR will continue the previous work detailed in the contract, Change Order 1 and add the following new tasks:

Task C: Redevelop Well SM-6 $2,690. This task involves conducting a camera survey of the well casing to assess condition followed by redevelopment along with water quality monitoring. A short letter will be prepared summarizing the work completed, results including the water quality data.

Task D: Preparation of groundwater-monitoring reports $3,770. Prepare and submit to the RWQCB the semi-annual groundwater monitoring reports in a timely fashion meeting all reporting requirements along with responding to questions about the report.

Task E: Miscellaneous Technical Support:$1,740. Continue to respond to regulatory comments on previously submitted reports and providing technical support for GeoTracker uploads and other issues as they arise.

Contract Time: Extends the current contract agreement through June 30, 2017.

Contract Price: This Change Order makes the following changes to the Contract Price: Prior to this Change Order, the total contract amount was $24,807.00. For Tasks C-E, this Change Order adds $8,200.00, resulting in a total contact amount of $33,007 after this Change Order is adopted.

This Change Order is hereby approved:

DATE:_____

Lawrence & Associates:

BY:_____
Bonnie Langley, President

ATTEST:

_____
Corporate Secretary

Del Norte Solid Waste Management Authority:

BY:_____
, Chair

ATTEST:

_____
, Secretary

APPROVED AS TO FORM:

BY:_____
Martha D. Rice, General Counsel

LAWRENCE
& ASSOCIATES
ENGINEERING GEOLOGY
CIVIL ENGINEERING
GROUND-WATER HYDROLOGY

P15063.01

August 2, 2016

Mr. Tedd Ward
Director
Del Norte Solid Waste Management Authority
1700 State Street
Crescent City, CA 95531

Dear Tedd:

SUBJECT: COST ESTIMATE FOR CONTINUING PROFESSIONAL ENVIRONMENTAL SERVICES, CRESCENT CITY LANDFILL

Per our recent discussions, Lawrence & Associates (L&A) is pleased to provide a cost estimate for continuing professional environmental services at the Crescent City Landfill during the 2016/2017 fiscal year. L&A completed work for the Del Norte Solid Waste Management Authority (DNSWMA) during the 2015/2016 fiscal year, the main task being preparation of a technical report analyzing the Landfill site's hydrogeology and proposing a reduction in the Threat/Complexity Rating and reduced monitoring requirements. The North Coast Regional Water Quality Control Board (NCRWQCB) has agreed to reduce the Threat/Complexity Rating from 1A to 2A; they have not responded formally regarding the proposed change in monitoring.

In addition to the above work, which was the main task requested by the DNSWMA in its original Request for Proposals, L&A completed the first-half 2016 groundwater-monitoring report for the Landfill. This work was not budgeted in our original proposal, but we completed within the budget allotted for the other tasks. L&A also assisted DNSWMA staff with uploading monitoring reports to the GeoTracker database, as requested by the NCRWQCB.

As a continuation of our previous work, we are proposing three general tasks for fiscal year 2016/2017, as follows (numbering is continued from our previous task list). Our detailed cost estimate is attached.

C. Redevelop SM-6 ($2,690)

In their review of the first-half 2016 monitoring report, the NCRWQCB made several comments, all but one of which were easily addressed in a revision to the report. The one item requested by the NCRWQCB that requires significant additional work is redevelopment of monitoring well SM-6. The water quality in this well suggests that it may be affected by

some type of non-landfill contamination, possibly foreign matter in the casing from vandalism.

Therefore, we propose first conducting a camera survey of the well casing to see if there is anything foreign in the well. Then, we will redevelop the well either by swabbing and bailing or surge pumping with a submersible pump. L&A will conduct this work under our well contractor's license (C57-539447). Water quality (pH, EC, turbidity) will be monitored during development.

After the work is completed, we will prepare a short letter report summarizing the work completed and the results, including the water-quality data.

D. Prepare groundwater-monitoring reports ($3,770)

If the DNSWMA wishes, L&A can continue to prepare the semi-annual groundwater monitoring reports. Typically (and in all new permits), the RWQCB requires that groundwater monitoring reports be prepared by a registered professional (either a professional geologist or engineer).

E. Miscellaneous technical support ($1,740)

This would include continuing to respond to regulatory comments on previously submitted reports (most likely the changes to monitoring parameters and frequency) and providing technical support for GeoTracker uploads.

Thank you for the opportunity to provide a proposal for this work. We would be happy to discuss the scope and cost, and tailor them further to your needs, if you wish. Please do not hesitate to contact me at (530) 275-4800 or blampley@lwrnc.com if you have any questions regarding our cost estimate.

Sincerely,

Bonnie E. Lampley

Bonnie E. Lampley
President / Principal Hydrogeologist
Enc: Cost Estimate

Cost Estimate - August 2, 2016

Del Norte Solid Waste Management Authority - Crescent City Landfill

		Principal $160.00	Senior Hydro-Geologist $135.00	Senior Engineer $140.00	Associate Geologist $115.00	AutoCAD / Tech $85.00	Clerical $65.00	Mileage $0.70	Expenses / Drill Crew $1.00	Task Total
C	**Redevelop SM-6**									
C1	Redevelop SM-6		1						1,950	$2,085
C2	Prepare letter report describing redevelopment and results		4				1			$605
Subtotals			$675				$65		$1,950	**$2,690**
D	**Prepare Groundwater Monitoring Reports**									
D1	2nd-half 2016	0.5	8			2	4		25	$1,615
D2	1st-half 2017	0.5	8			2	4		25	$1,615
D3	Respond to regulatory comments		4							$540
Subtotals		$160	$2,700			$340	$520		$50	**$3,770**
E	**Miscellaneous Continuing Technical Support**									
E1	Continuing responses to MRP update request		4							$540
E2	Miscellaneous technical support for monitoring, Geotracker, etc.		6				6			$1,200
Subtotals			$1,350				$390			**$1,740**

TOTAL ESTIMATED COST $8,200

Note: Our commitment is to the total project budget. Work-hour and staff allocations to individual activities are approximate, and are shown to indicate approximate level of effort.

HAMBRO WSG

P.O. Box 159 445 Elk Valley Road
Crescent City, CA 95531
(707)464-6131
Fax (707)464-9375

June 8, 2016

Del Norte County Solid Waste Management Authority

1700 State Street

Crescent City, CA 95531

Att'n. Tedd Ward – Director

Dear Mr. Ward,

As we discussed at the last meeting of the solid waste management authority what follows is our proposal as to the mechanics of how a reimbursement amount Hambro WSG would be determined, should the authority so choose to move forward with the reimbursement of losses due to Hambro WSG not receiving the July CPI escalator for the 2016/2017 fiscal year.

Once the July receipts from the scale house are finalized and Hambro WSG's pre CPI escalator payment has been determined our suggestion is to simply multiply that payment by the escalator that would have occurred should the CPI increase have occurred in July instead of in August.

So as an example –

If our pre CPI payment would have been $170,000 in July we would suggest that we simply multiply that number by the CPI escalator which will occur in August and throughout the remainder of the 2016/2017 fiscal year.

The CPI escalator can be calculated by taking the CPI for March of 2016 (238.12), divide it by March of 2015 CPI (236.119) and subtract from 1. We then would multiply this by 80% as that is the adjustment factor used in our contract. This equates to ((238.12/236.119)-1) X 0.80 = 0.678 or 0.678%. (see attached for CPI's in Change Orders 22 and 23).

Thus if the pre CPI payment would have been $170,000 we simply take that payment times the 0.678% and that would equate to the difference in the payment that was actually made to Hambro WSG pre CPI adjustment versus post CPI adjustment. In this example it would equate to $170,000 X 0.678% or $1,139.00.

We sincerely appreciate your and the board's consideration.

Sincerely,

Wes White

CEO

5.1

Del Norte Solid Waste Management Authority

1700 State Street, Crescent City, CA 95531
Phone (707) 465-1100 Fax (707) 465-1300
www.recycledelnorte.ca.gov

The Authority's mission is the management of Del Norte County solid waste and recyclable material in an environmentally sound, cost effective, efficient and safe manner while ensuring 100% regulatory compliance with law.

Staff Report

Date:	12 August 2016
To:	Commissioners of the Del Norte Solid Waste Management Authority
From:	Tedd Ward, M.S. – Director
File Number:	080104 – Transfer Station Operations
Attachment:	Hambro/WSG letter of June 8, 2016
Topic:	Request for additional payment from H/WSG

Summary / Recommendation: That the Authority Board direct staff to prepare a Change Order authorizing a one-time payment to Hambro/WSG in the amount of $1,167 in compensation for delayed implementation of the annual service fee adjustment based on the Consumer Price Index (CPI-U) changes between March 2015 and March 2016.

Background: The delayed implementation of the CPI adjustment was due to the need for additional time to adopt a Rate Ordinance. Generally, if there are no new service fees, annual CPI-based rate adjustments are made by a Rate Resolution. As Resolutions do not require publication in a local newspaper or a public hearing process, those can be adopted more promptly.

The need for a Rate Ordinance was triggered by the additional amount Hamrbo/WSG was passing along based on an additional landfill fee imposed by the State of Oregon and the introduction of textile recycling. Under the Transfer Station Operations Agreement, rate adjustments are made annually in July, and there was not adequate time to adopt a Rate Ordinance to meet the July deadline. So the rate adjustments were made in August 2016.

Analysis: This additional requested payment is calculated based on Hambro/WSG's revenue for July 2016 of $172,112 multiplied times an adjustment factor of 0.00678, resulting in a calculated additional payment of $1,167 to compensate Hambro/WSG for the reduced revenue associated with the delayed implementation of the CPI-based rate adjustment.

Alternatives: The Authority could deny this request, as it is not explicitly justified

under any provision of the Authority's Transfer Station Operations Agreement. Furthermore, Hambro/WSG did not provide Authority staff with the information regarding the changes to Oregon law in a manner timely enough to enable adoption of a Rate Ordinance before changing rates at the start of July.

Fiscal Impacts: If approved, this amount would be paid from the Transfer Station Operations budget line. Though it was not anticipated or included in the budget projections, staff do not anticipate that this change by itself will require a budget transfer to this line.

Related Issues: If the Board approves this request, Recology Del Norte may also make a similar request for additional payment based on the delayed implementation of the annual CPI-based service fee adjustments. If the Board approves this request, it will be setting a precedent for such compensation. Staff project that a similar request from Recology would be for approximately twice the amount requested by Hambro/WSG.

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Staff Report

Date: **12 August 2016**
To: **Commissioners of the Del Norte Solid Waste Management Authority**
From: **Tedd Ward, M.S. – Director**
Del Norte Solid Waste Management Authority
File Number: **012104 – Authority Officers**

Topic: **Elections of Authority Officers**

Summary / Recommendation: **That the Board nominate and elect a new Authority Chair, and other officers as needed.**

Background: Under Section 2 of the Authority's By-laws, the Authority Board of Commissioners is to elect officers annually to serve one-year terms. Authority officers include the following:

Chair: Presides at all meetings of the Governing Board and shall sign all contracts and other instruments for an on behalf of the Authority. At the July 5th Authority meeting, Commissioner McClure stepped down from this position leaving a vacancy.

Vice-Chair: Performs all duties of the Chair in the absence or incapacity of the Chair. Traditionally, the Chair and Vice-Chair have been from different member agencies. City Councilperson Blake Inscore was elected as the Vice-Chair in January 2016.

Secretary / Clerk: The Commissioner who serves as Secretary / Clerk signs all minutes and other documents reporting and acknowledging specific votes of the Authority Commissioners, including Resolutions and Ordinances. City Councilperson Ron Gastineau was elected as the Authority Secretary in January 2016. Other secretarial and clerical functions of the Authority are being fulfilled by Katherine Brewer,

6.1

Account Clerk – Solid Waste or other Authority staff.

Analysis: Under section 2.2 of the Authority By-laws, the Chair and Vice-Chair "... shall be elected by the Governing Board from the Authority Commissioners appointed by the Charter Members..." meaning that the Chair and Vice Chair must also be members of the City Council or Board of Supervisors. Staff work with the Chair and Vice-Chair to set the agenda for each Authority meeting, and staff would like to continue working with an appropriately elected chair to set the agenda for upcoming Authority meetings.

Staff do not recommend that the Chair and the Vice-Chair positions be held by one person, as the Vice-Chair runs Authority meetings when the Chair is not available. Such appointments usually have a one year term.

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Staff Report

Date: **05 August 2016**
To: **Del Norte County Board of Supervisors**
From: **Kayleen Warner – Facilities & Programs Coordinator**
Tedd Ward, M.S. – Director
Del Norte Solid Waste Management Authority

Attachments:

1. **Letter from Chamber of Commerce re. Sea Cruise Car Show and Blues, Brews & Cruise activities**
2. **Email from Randy Hatfield re: 2016 County Fair**
3. **Email from Supervisor Roger Gitlin re: "Take a Bite Out of Blight" activities**
4. **Correspondence from City of Crescent City re: Find Your Park! Event**
5. **Criteria and Policy for the allocation of Authority directed Complimentary bin pulls**

File Numbers: **031205, 180510**
Topic: **Support for 2016 public events with Authority-directed bin pulls**

Summary / Recommendation: That the Board take each of the following actions:

1. Approve use of nine of the Authority-directed bin pulls to provide disposal of materials associated with the celebrations and cleanup associated with the events listed above, and
2. Waive the Authority's portion of the service fees for disposal of materials contained in those bins.

Background: Under the collections Franchise agreement with Recology Del Norte, the Authority may direct up to twenty complimentary bin pulls per calendar year. Since this provision was included in the Franchise Collection Agreement with Recology Del Norte starting in 2011, the Authority supported many community celebrations and events. The attached letters request that the Authority provide similar support for the following:

6.2

- City of Crescent City-Find Your Park! Request is for two bins. This is a new event not previously supported.
- Randy Hatfield on behalf of the 2016 County Fair. Request is for three bins. This event has been supported for many years and the Authority is a major sponsor of the Fair.
- Supervisor Roger Gitlin-"Take a Blight Out of Blight" community cleanup at a homeless encampment situated on County property near WalMart. This event is a new one-time request.
- Chamber of Commerce- Sea Cruise Car Show. Request is for two bins. This event has been previously supported.
- Chamber of Commerce-Blues, Brews and Cruise. Request is for one bin. This is the second year of this event, however, this is the first request for a bin pull.

Authority staff are not aware if Hambro / WSG has waived their disposal fees for the materials in these bins.

Analysis: To date, the Authority has approved five bin pulls. If all nine of these requests are approved, there would be six bin pulls remaining for the Authority to direct before the end of calendar year 2016. If the coastal cleanups and support for the HHW Waste Roundup requests occur as in previous years and are supported, all bin pulls would be allocated, leaving no capacity to support additional or unanticipated events for 2016.

The current requests are consistent with the adopted criteria for use of these bins, specifically: "**Support of high-profile community events open to the public that include both disposal and recycling, and/or related outreach activities and cleanup activities on public property".**

With the increase in requests for bin pulls the Board may wish to consider a ranking or modified selection process in addition to discussing the potential issues related to cleanups on County property and the removal of property from homeless encampments. These may include concerns regarding coordination with law enforcement and/or establishing a process for assuring that cleanups on County properties are conducted in coordination with the County Code Enforcement Officer, who may have information or methods for ranking the relative priority of potential cleanups on County properties.

Alternatives: The Board could deny any or all of the requests, which would increase the costs for the various community events, reduce the availability of convenient disposal, or both.

Fiscal Impacts: While allocating nine Authority-directed bin pulls for these events does not directly increase Authority expenses, the value of this allocation and waiving of fees is approximately $186.16 per bin ($1,675.44 for the nine requested pulls) depending on the size of the bins.

September or October of each year.

CRESCENT CITY / DEL NORTE COUNTY
CHAMBER OF COMMERCE
1001 Front Street ▪ Crescent City CA 95531 ▪ www.delnorte.org
PHONE 707.464.3174 ▪ TOLL FREE 800.343.8300 ▪ FAX 707.464.9676

July 28, 2016

Solid Waste Management Authority Board of Directors
1700 State Street
Crescent City, CA 95531
707-465-1100

To the Solid Waste Management Authority Board of Directors:

The Crescent City-Del Norte County Chamber of Commerce is requesting a fee waiver for the disposal of one (1) 20 yard dumpster and one (1) 40 yard dumpster from the Annual Sea Cruise Car Show held at Beachfront Park and possibly one (1) 20 yard dumpster from the Blues, Brews & Cruise held in downtown Crescent City or Beachfront Park; both events will occur October 8, 2016. Hambros has agreed to waive their fees.

We really appreciate the support your organization has provided for our community festivals. We look forward to teaming with the Solid Waste Management Authority for future events.

If you have any questions, please call the Chamber office at 707-464-3174. I would be happy to discuss the nature of this request.

Respectfully,

Jeff Parmer

Jeff Parmer
Executive Director
Crescent City- Del Norte County Chamber of Commerce
707-464-3174
jparmer@delnorte.org

Tedd Ward

From: Randy <rhatfield@dnfair.org>
Sent: Wednesday, July 13, 2016 11:04 AM
To: Tedd Ward; 'Jeremy Herber'; 'Joel Wallen'
Subject: Re: Fair Bin Fee Waiver request

Gentlemen, The fair will be here soon and in the past your companies
has provided to the fair garbage service at no charge. I am
requesting that your company wave your portion of the disposal fee again this year. We have requested 2- 20 yard and one 3 yard. If you have
any questions please contact me. Sincerely, Randy Hatfield CEO.

PROJECT SCOPE

Project Title: Find Your Park Crescent City
Project Sponsors: City of Crescent City (City Council) and Redwood National and State Parks
Project Manager: Kymmie Scott, City of Crescent City
Assistant Project Manager: Connie Battles-Bern, Redwood National and State Parks
Project Customer: Citizens and Visitors of Del Norte County

Project Purpose: To create a new annual event for Crescent City, capitalizing on collaboration, that will provide economic stimulus to the economy during a traditional shoulder season; project should also provide quality of life and community pride enhancement for residents.

Project Definition: Find Your Park! Crescent City will be a 2-day event over Labor Day weekend that celebrates Del Norte County's amazing outdoor space and recreation in the spirit of the National Park Service's Centennial Celebration and the Find Your Park initiative. Day one will be primarily located in Crescent City's oceanfront 35-acre Beachfront Park, and the theme "Come together and celebrate!" describes the desire to bring people from across the region together to rejoice in a number of family-friendly outdoor activities. Day two, with a theme of "Go out, explore, and learn!" will be marked by numerous classes, clinics, and tours related to the outdoors taking place in many spectacular locations across Del Norte County.

Project Requirements: All activities should be designed with inclusion in mind; with an emphasis on making participation low-cost and accessible, and, when possible, friendly to youth, veterans, and disabled populations. Individual activities are developed, organized, and run by various agencies, nonprofits, individuals, and businesses working in collaboration under the coordination of the City of Crescent City.

Project Boundaries: Project will include activities that focus on one or more of the following related qualifications: recreation, nature, the environment, use of parks, healthy foods, local artisans, and family / social interaction. Project will not include activities that promote violence or drug abuse, are political in nature, or exclude anyone on the basis of race, color, religion, national origin, sex, age, disability, or any other status protected by law or regulation.

Project Deliverables: A minimum of ten (10) activities will be offered for day one, and a minimum of ten (10) activities will be offered for day two; activities will appeal to a diverse variety of interests, abilities, and ages.

Project Acceptance Criteria: Project will be deemed successful if (a) there is marked participation from local agencies, organizations, nonprofits, and businesses; (b) advertising reaches Del Norte, Humboldt, Jackson, and Curry counties; (c) hotel occupancies within City

limits reach 80% or better from September 2nd through the 4th (by comparison, 4th of July occupancy typically reaches 90% or better)

Project Constraints: The project is constrained primarily by cost; timing did not allow for budgeting of expenses for most participating agencies/organizations. Funding is only available through partnerships and sponsorships. There are some physical constraints including size of event location, availability of utilities at the event site, and transportation and parking access near the event and planned activities.

Project Assumptions: The weather will be perfect, people will be interested, there will be no zombie apocalypse with the looming election, and let's not mention the words tsunami or earthquake, ok?

Initial Project Organization: The following organizations have been invited to send members to participate as part of the core planning team: Redwood National and State Parks, the County of Del Norte, the Del Norte County / Crescent City Chamber of Commerce, the Triplicate Newspaper, BiCoastal Media Radio Productions, Crescent City Harbor District, Del Norte County Unified School District, Elk Valley Rancheria, Resighini Rancheria, the Yurok Tribe, and the Tolowa Dee-Ni' Nation.

FIND YOUR PARK!

Beachfront Park, Crescent City

#FindYourParkCrescentCity

A Celebration of Del Norte County's Amazing Outdoor Space & Recreation

Labor Day Weekend
September 3-4, 2016

Saturday 9/3: Come Together and Celebrate!

- BBQ Wars & Beer Festival
- Soccer Tournaments
- Kayak & SUP Instruction
- Kids Activities and Games
- Storytellers
- Time Capsule
- Guest Speakers
- Bike Tour
- Live Music
- Art In The Park
- Movie Night—E.T.
- Horseshoe Tournament
- Farmers/Artisan Market
- Veteran/Disabled Carriage Rides
- Horseback Rides
- StoryCorps

Watch for the final event schedule coming soon!

Sunday 9/4: Go Out, Explore, and Learn!

- Kite-Flying Instruction
- Birding Clinic
- Master Gardeners Classes
- Ocean Fishing Instruction
- Hunter Education Class
- Mushrooming Clinic
- Kayak & SUP Instruction
- Disc Golf Clinics
- Ranger-Led Hikes
- Fly Fishing Clinic
- Soccer Clinic
- Nature Art Instruction
- Outdoor Photography Classes
- Beachcomb w/Marine Biologist

...and Much, Much More!

For more information call 707-464-7483 ext. 223

Tedd Ward

From: Chris Howard <choward@co.del-norte.ca.us>
Sent: Monday, July 11, 2016 10:27 AM
To: binscore@cc.crescentcity.org; tedd@recycledelnorte.ca.gov
Subject: Fwd: Request Agenda item on DNSWMA

Please considering placing Mr. Gitlins request on our next agenda.

Thank you,

Chris

Sent from my iPhone

Begin forwarded message:

> **From:** Roger Gitlin <rgitlin@co.del-norte.ca.us>
> **Date:** July 10, 2016 at 12:38:14 PM PDT
> **To:** Chris Howard <choward@co.del-norte.ca.us>
> **Cc:** Jeremy Herber <jherber@recology.com>
> **Subject: Request Agenda item on DNSWMA**
>
> Supervisor Howard,
> As you are designated representative from the County to the Solid Waste Authority, I would you to place on the Agenda the donation of a Recology dumpster to remove trash from illegal encampment area situated on Del Norte County land, directly NE of the Wal-Mart.
>
> Once the item has been approved, Take a Bite out of Blight volunteers will remove all the trash from the area. I'll advise you on the size of the dumpster once the Authority has approved the donation and we can access the extent of the problem.
> Thank you.

Roger Gitlin
Supervisor District 1
County of Del Norte
981 H Street
Crescent City, CA 95531
(707) 464-0801 Office
(707) 951-6361 Cell

Del Norte Solid Waste Management Authority

1700 State Street, Crescent City, CA 95531
Phone (707) 465-1100 Fax (707) 465-1300
www.recycledelnorte.ca.gov

The Authority's mission is the management of Del Norte County solid waste and recyclable material in an environmentally sound, cost effective, efficient and safe manner while ensuring 100% regulatory compliance with law.

Staff Report

Date: **11 August 2016**
To: **Commissioners of the Del Norte Solid Waste Management Authority**
From: **Tedd Ward, M.S. –Director**
Del Norte Solid Waste Management Authority
Attachments:

1. **Summary of Proposition 65, California Carry-Out Bag Revenue Initiative**
2. **Summary of Proposition 67, California Plastic Bag Ban Referendum**

File Numbers: **120502**
Topic: **Legislative Advocacy**

Summary / Recommendation: That the Board:
1. Adopt a position of support for Proposition 67 and;
2. Authorize staff and Commissioners to write, sign and submit letters and engage in other appropriate forms of organization and lobbying to advocate the adopted positions and interests of the Del Norte Solid Waste Management Authority and;

Background: In an attempt to mitigate an easily preventable form of plastic pollution, Senate Bill 270 was adopted by the Legislature and signed by Governor Jerry Brown establishing a statewide ban on the distribution of single-use plastic grocery bags at most stores in 2014. It was the culmination of a 5-year effort that included the adoption of hundreds of local bag bans and the support of local governments, environmental groups, grocers, retailers and labor organizations.

Immediately after SB 270 was signed, out-of-state plastic bag manufacturers spent more than $3 million on a paid signature gathering effort to qualify a referendum for the November 2016 ballot for voters to decide its fate. This postponement of the law has resulted in the continued distribution of more than 192 million single-use plastic bags every week.

Analysis: This November, California voters are being asked to vote on upholding the contested legislation banning plastic bags through Proposition 67. A vote of YES is a vote in favor of upholding the ban and this is the position staff recommends the Board adopt. In the past two months, Julindra Recycling and Recology have requested the removal of plastic bags from the mixed recycling stream due to the collapsed scrap market and high processing costs.

Proposition 65, which redirects money collected from the sale of carry-out bags by grocery or other retail stores to a special fund administered by the Wildlife Conservation Board, was placed on the ballot by the plastics industry and is intended to confuse the electorate, therefore staff recommends the Board not adopt a positon on this measure.

Alternatives: The Authority Board may revise any of the recommended positions, add, or delete any of the bills listed for policy advocacy. If any Board member wants to review any of these ballot measures more thoroughly, staff will, upon advance request, bring printed copies to the Authority meeting.

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California Carry-Out Bag Revenue Initiative, Proposition 65 (2016)

The **Environmental Fee Protection Initiative** (#15-0074) will be on the November 8, 2016, ballot in California as an initiated state statute.

A **"yes"** vote is a vote in favor of redirecting money collected from the sale of carry-out bags by grocery or other retail stores to a special fund administered by the Wildlife Conservation Board.

A **"no"** vote is a vote against redirecting money collected from the sale of carry-out bags by grocery or other retail stores to a special fund administered by the Wildlife Conservation Board.

California Environmental Fee Protection Initiative

Election date
November 8, 2016

Topic
Environment

Status
On the ballot

Type State statute
Origin Citizens

Overview

What would this measure do?

Revenue would be used for specific categories of environmental projects.[1]

Text of measure

Ballot title

The official ballot title is as follows:[2]

> Carry-Out Bags. Charges. Initiative Statute.[3]

Ballot summary

The official ballot summary is as follows:[2]

> Redirects money collected by grocery and certain other retail stores through sale of carry-out bags, whenever any state law bans free distribution of a particular kind of carry-out bag and mandates the sale of any other kind of carry-out bag. Requires stores to deposit bag sale proceeds into a special fund administered by the Wildlife Conservation Board to support specified categories of environmental projects. Provides for Board to develop regulations implementing law.[3]

Voting on the Environment

Ballot Measures
By state
By year
Not on ballot
Local [show

Full text

The full text of the measure can be found here (http://www.oag.ca.gov/system/files/initiatives/pdfs/15-0074%20%28Carryout%20Bag%20Fees%29.pdf?).

Fiscal impact

Note: The fiscal impact statement for a California ballot initiative authorized for circulation is jointly prepared by the state's legislative analyst and its director of finance. The statement is as follows:[2]

> If voters uphold the state's current carryout bag law, redirected revenues from retailers to the state, potentially in the several tens of millions of dollars annually. Revenues would be used for grants for certain environmental and natural resources purposes. If voters reject the state's current carryout bag law, likely minor fiscal effects.[3]

15-0074

October 2, 2015

RECEIVED
OCT 02 2015
INITIATIVE COORDINATOR
ATTORNEY GENERAL'S OFFICE

VIA PERSONAL DELIVERY

The Honorable Kamala D. Harris
Attorney General
1300 I Street, 17th Floor, P.O. Box 944255
Sacramento, CA 95814

Attention: Ashley Johansson, Initiative Coordinator

Re: Request for Title and Summary for Proposed Initiative Statute

Dear Ms. Harris:

Pursuant to Article II, Section 10(d) of the California Constitution, I hereby submit the attached proposed Initiative Statute, entitled the "Environmental Fee Protection Act," to your office and request that you prepare a title and summary of the measure as provided by law. Included with this submission is the required proponent affidavit signed by the proponent of this measure pursuant to Section 9608 of the California Elections Code. My address as a registered voter is attached to this letter, along with a check for $200.00.

All inquires or correspondence relative to this initiative should be directed to Nielsen, Merksamer, Parrinello, Gross & Leoni, LLP, 1415 L Street, Suite 1200, Sacramento, CA 95814, Attention: Kurt Oneto (telephone: 916/446-6752).

Thank you for your assistance.

Sincerely,

Doyle L. Johnson, Proponent

Enclosure: Proposed Initiative Statute

SECTION 1. Title.

This Act shall be known and may be cited as the Environmental Fee Protection Act.

SEC. 2. Findings and Declarations.

The People of the State of California find and declare as follows:

(a) In 2014, the California state Legislature enacted a ban on plastic carryout bags after lobbying by special interests including the California Grocers Association.

(b) The law further mandated that stores sell every paper or reusable carryout bag they provide to consumers for a minimum of 10 cents. Stores can charge even more if they so choose, and the grocers and retailers are specifically required by the law to keep these mandated sales charges as extra revenue.

(c) None of the sales charges on carryout bags required by state law will go to environmental purposes. The Legislature specifically wrote the law in such a way as to make these sales charges additional revenue to grocers and retailers.

(d) This special interest deal will provide grocers and retailers over $400 million in added revenue every year – all at the expense of California consumers and with little or no benefit to the environment.

(e) The people of California have every right to expect that any sales charges on carryout bags they are required by state law to pay are dedicated to protecting the environment; not enriching corporations.

SEC. 3. Statement of Purpose.

The purpose of the Environmental Fee Protection Act is to fulfill Californians' expectations by requiring that any charges on carryout bags paid by consumers in connection with, or to advance, any plastic bag ban are dedicated to appropriate and worthy environmental objectives like drought mitigation, recycling, clean drinking water supplies, parks, beach cleanup, litter removal, and wildlife habitat restoration.

SEC. 4. Chapter 5.2 (commencing with Section 42270) is added to Part 3 of Division 30 of the Public Resources Code, to read:

CHAPTER 5.2. CARRYOUT BAG CHARGES: ENVIRONMENTAL PROTECTION AND EHANCEMENT

Section 42270. This chapter shall be known, and may be cited as, the Environmental Fee Protection Act.

Section 42271. (a) Notwithstanding any other provision of law, all moneys generated or collected by a store pursuant to a state law that bans free distribution of any type of carryout bag, and mandates the sale of any other type of carryout bag, shall be deposited into the Environmental Protection and Enhancement Fund, which is established in the State Treasury and administered by the Wildlife Conservation Board pursuant to Section 42272.

(b) For purposes of this chapter:

(1) "Store" means a retail establishment that meets any of the following requirements:

(A) A full-line, self-service retail store with gross annual sales of two million dollars ($2,000,000) or more that sells a line of dry groceries, canned goods, or nonfood items, and some perishable items.

(B) Has at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code.

(C) Is a convenience food store, foodmart, or other entity that is engaged in the retail sale of a limited line of goods, generally including milk, bread, soda, and snack foods, and that holds a Type 20 or Type 21 license issued by the Department of Alcoholic Beverage Control.

(D) Is a convenience food store, foodmart, or other entity that is engaged in the retail sale of goods intended to be consumed off the premises, and that holds a Type 20 or Type 21 license issued by the Department of Alcoholic Beverage Control.

(2) "State law" means any statute, law, regulation, or other legal authority adopted, enacted, or implemented before or after the effective date of this section by the State of California or any agency or department thereof.

(3) "Carryout bag" means single use carry-out bags, paper bags, recycled paper bags, plastic bags, recyclable plastic bags, reusable plastic bags, compostable bags, reusable grocery bags, or any other kind of bags used to carry purchased items away from a store.

(c)(1) The Wildlife Conservation Board may adopt regulations, and/or coordinate or contract with other state or local agencies, in furtherance of the administration and implementation of subdivision (a) of this section, Section 42272, and Section 42273.

(2) Notwithstanding any other provision of law, a loan in the amount of five hundred thousand dollars ($500,000) is hereby made from the Safe Drinking Water, Water Quality and Supply, Flood Control, and Coastal Protection Fund of 2006 (Section 75009 of the Public Resources Code) to the Wildlife Conservation Board for the purpose of adopting regulations for the administration and implementation of subdivision (a) of this section, Section 42272, and Section 42273. If the moneys in the Safe Drinking Water, Water Quality and Supply, Flood Control, and Coastal Protection Fund of 2006 are insufficient to make the loan required by this paragraph, then the loan shall be made from the Water Quality, Supply, and Infrastructure Improvement Fund of 2014 (Section 79715 of the Public Resources Code). All moneys deposited into the Environmental Protection and Enhancement Fund shall first be used to repay the loan until the full loan amount is repaid. The Controller and all other responsible state officials shall take all actions necessary to effectuate the loan required by this paragraph.

Section 42272. (a) The Environmental Protection and Enhancement Fund is hereby established in the State Treasury.

(b) Notwithstanding any other provision of law, the Environmental Protection and Enhancement Fund is a trust fund established solely to carry out the purposes of this chapter. Notwithstanding Section 13340 of the Government Code, all moneys deposited in the Fund, together with interest earned by the Fund, are hereby continuously appropriated, without regard to fiscal years, to the Wildlife Conservation Board solely for the purposes set forth in subdivision (c).

(c) The Wildlife Conservation Board shall use the moneys in the Environmental Protection and Enhancement Fund to fund environmental protection and enhancement grants. Projects and programs eligible for grants are as follows:

(1) Drought mitigation projects including, but not limited to, drought-stressed forest remediation and projects that expand or restore wetlands, fish habitat, or waterfowl habitat.

(2) Recycling.

(3) Clean drinking water supplies.

(4) State, regional, and local parks.

(5) Beach cleanup.

(6) Litter removal.

(7) Wildlife habitat restoration.

(d) The Wildlife Conservation Board shall use no more than 2 percent of the moneys in the Environmental Protection and Enhancement Fund for administrative expenses. Grant recipients shall use no more than 5 percent of any moneys received for administrative expenses.

(e) Prior to disbursing any grants pursuant to this chapter, the Wildlife Conservation Board shall develop project solicitation and evaluation guidelines. The guidelines may include a limitation on the dollar amounts of grants to be awarded. Prior to finalizing the guidelines, the Wildlife Conservation Board shall post the draft guidelines on its Internet website and conduct three public hearings to consider public comments. One public hearing shall be held in Northern California, one hearing shall be held in the Central Valley, and one hearing shall be held in Southern California.

(f)(1) The non-partisan California State Auditor shall conduct a biennial independent financial audit of the programs receiving funds pursuant to this chapter. The Auditor shall report its findings to the Governor and both houses of the Legislature, and shall make the findings available to the public on its Internet website.

(2)(A) The Auditor shall be reimbursed from moneys in the Environmental Protection and Enhancement Fund for actual costs incurred in conducting the biennial audits required by this subdivision, in an amount not to exceed four hundred thousand dollars ($400,000) per audit.

(B) The four hundred thousand dollar ($400,000) per audit maximum limit shall be adjusted biennially to reflect any increase or decrease in inflation as measured by the Consumer Price Index for All Urban Consumers (CPI-U). The Treasurer's Office shall calculate and publish the adjustments required by this paragraph.

Section 42273. (a) Notwithstanding any other law, local governments may require moneys generated or collected pursuant to any local law that bans free distribution of any type of carryout bag, and mandates the sale of any other type of carryout bag, to be deposited into the Environmental Protection and Enhancement Fund and used for the purposes set forth in Section 42272.

(b) For purposes of this section, "local law" means any ordinance, resolution, law, regulation, or other legal authority adopted, enacted, or implemented by any city, county, city and county, charter city, charter county, special district, school district, community college, or other local or regional governmental entity.

SEC 5. Liberal Construction.

This act shall be liberally construed in order to effectuate its purposes.

SEC. 6. Conflicting Measures.

(a) In the event that this measure and another measure or measures relating to the use of moneys generated or collected by stores pursuant to laws that bans free distribution, and mandates the sale, of any or all types of carryout bags shall appear on the same statewide election ballot, the other measure or measures shall be deemed to be in conflict with this measure. In the event that this measure receives a greater number of affirmative votes, the provisions of this measure shall prevail in their entirety, and the provisions of the other measure or measures shall be null and void.

(b) If this measure is approved by the voters but superseded in whole or in part by any other conflicting initiative approved by the voters at the same election, and such conflicting initiative is later held invalid, this measure shall be self-executing and given full force and effect.

SEC. 7. Severability.

The provisions of this Act are severable. If any portion, section, subdivision, paragraph, clause, sentence, phrase, word, or application of this Act is for any reason held to be invalid by a decision of any court of competent jurisdiction, that decision shall not affect the validity of the remaining portions of this Act. The People of the State of California hereby declare that they would have adopted this Act and each and every portion, section, subdivision, paragraph, clause, sentence, phrase, word, and application not declared invalid or unconstitutional without regard to whether any portion of this Act or application thereof would be subsequently declared invalid.

SEC. 8. Legal Defense.

If this Act is approved by the voters of the State of California and thereafter subjected to a legal challenge alleging a violation of federal law, and both the Governor and Attorney General refuse to defend this Act, then the following actions shall be taken:

(a) Notwithstanding anything to the contrary contained in Chapter 6 of Part 2 of Division 3 of Title 2 of the Government Code or any other law, the Attorney General shall appoint independent counsel to faithfully and vigorously defend this Act on behalf of the State of California.

(b) Before appointing or thereafter substituting independent counsel, the Attorney General shall exercise due diligence in determining the qualifications of independent counsel and shall obtain written affirmation from independent counsel that independent counsel will faithfully and vigorously defend this Act. The written affirmation shall be made publicly available upon request.

(c) A continuous appropriation is hereby made from the General Fund to the Controller, without regard to fiscal years, in an amount necessary to cover the costs of retaining independent counsel to faithfully and vigorously defend this Act on behalf of the State of California.

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California Plastic Bag Ban Referendum, Proposition 67 (2016)

The **California Plastic Bag Ban Referendum** will be on the November 8, 2016, ballot in California as a veto referendum.

A **"yes"** vote is a vote in favor of upholding or ratifying the contested legislation banning plastic bags that was enacted by the California State Legislature under the name Senate Bill 270.

A **"no"** vote is a vote in favor of overturning Senate Bill 270.

If the measure is approved by the state's voters, it would:[1][2]

- Ratify Senate Bill 270 (2014).
- Prohibit large grocery stores and pharmacies from providing plastic single-use carryout bags and ban small grocery stores, convenience stores and liquor stores from doing so the following year.
- Allow single-use plastic bags for meat, bread, produce, bulk food and perishable items.
- Mandate stores to charge 10 cents for recycled, compostable and reusable grocery bags.
- Exempt consumers using a payment card or voucher issued by the California Special Supplemental Food Program from being charged for bags.
- Provide $2 million to state plastic bag manufacturers for the purpose of helping them retain jobs and transition to making thicker, multi-use, recycled plastic bags.

The American Progressive Bag Alliance, an opponent of the measure, is leading the campaign to repeal SB 270.[3]

California Plastic Bag Ban Referendum

Election date
November 8, 2016

Topic
Business regulation and Environment

Status
On the ballot

Type	Origin
Referendum	Citizens

Text of measure

Official summary:[4]

> If signed by the required number of registered voters and timely filed with the Secretary of State, this petition will place on the statewide ballot a challenge to a state law previously approved by the Legislature and the Governor. The challenged law must then be approved by a majority of voters at the next statewide election to go into effect. The law prohibits grocery and certain other retail stores from providing single-use bags but permits sale of recycled paper bags and reusable bags.[5]

Voting on Business Regulation

Ballot Measures
By state
By year
Not on ballot
Local [show

Background

Local ordinances

In 2007, San Francisco became the first jurisdiction in California to ban single-use plastic bags. Since then, 108 ordinances banning single-use plastic bags have been approved in the state, covering 137 county or local jurisdictions. Los Angeles, the largest city in California and second largest in the United States, banned single-use plastic bags and placed a 10 cent charge on paper bags. The city's ordinance went into effect on January 1, 2014, for large businesses and on July 1, 2014, for small businesses.[6]

There were initiative attempts to overturn local single-use plastic bag bans in Walnut Creek, Huntington Creek and Campbe California. All were unsuccessful in their signature drives.[7] In January 2015, however, Huntington Beach's city council votec

BLACK & RICE LLP

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The McNulty House
710 H Street
Crescent City, CA 95531

Martha D. Rice, Partner
mrice@attyblack.com

Andre L. Carpenter, Office Mgr
acarpenter@attyblack.com

TO: Vice Chair Inscore and Members of the Board

FR: Martha D. Rice, General Counsel

DT: August 16, 2016

RE: New Legal Services Agreement

Robert N. Black began providing general counsel legal services to the Authority in 2007. Martha D. Rice began working with Mr. Black in 2007 as a paralegal (licensed to practice law in the State of Oregon, but not yet California). In January 2009, Ms. Rice received her California State Bar license and began providing legal services for the Authority.

In 2014, the Authority consented to an assignment of the 2010 legal services agreement with the Law Offices of Robert N. Black, an agreement that had been in place since 2010. Per the current contract, attorneys' hourly rates are to be automatically increased by 5% each year. The last increase for Mr. Black was in 2011 at the rate of $199 for general counsel services and for Ms. Rice in 2012 at the rate of $182 for deputy general counsel services. Neither attorney has requested an increase since then. In addition, Ms. Rice has been serving as general counsel but working at deputy general counsel rates.

Therefore, Black & Rice LLP is requesting that the Authority sign a new legal services agreement with updated rates and no automatic increase provision. The new rates proposed are $205 per hour for both Mr. Black and Ms. Rice, that is a 3% increase for the hourly general counsel rate, a rate that has not been increased in 4 ½ years. This rate is consistent with what our other public agency clients are paying by the hour. The new agreement also includes the option of utilizing another attorney in our firm, Ms. Autumn Luna, at the rate of $195 per hour.

Thank you for your consideration.

Respectfully submitted,

Martha D. Rice
Partner, Black & Rice LLP

Phone: 707-464-7637
Fax: 707-464-7647

LEGAL SERVICES AGREEMENT
FOR GENERAL COUNSEL

This Legal Services Agreement ("Agreement") is entered into by and between the Del Norte Solid Waste Management Authority, a California joint powers authority made up of the City of Crescent City and the County of Del Norte ("Authority") and Black & Rice LLP, a California limited liability partnership (the "Firm"). This Agreement has an effective date of September 1, 2016.

Whereas, Robert N. Black has been serving as the Authority's General Counsel since 2007, Martha D. Rice has been serving as Deputy General Counsel 2009, and the Firm added another attorney, Autumn E. Luna in 2013 who also practices municipal law;

Whereas, the Authority has an ongoing need for the legal services of General Counsel and the Firm can continue to provide those services; and

Whereas, the attorneys of the Firm are duly licensed under the laws of the State of California and possess the skill and knowledge necessary to discharge the duties of General Counsel to the Authority;

NOW, THEREFORE, the parties hereto agree as follows:

1. **Scope of Services.** The Authority hereby retains the Firm to perform those duties of General Counsel. The Firm will provide those legal services requested from time to time by the Authority Board or the Director, subject to applicable conflict-of-interest rules. Services to be performed under this Agreement include, but are not limited to, the following:
    a. Rendering of legal advice to and consultation with the Authority Board and the Authority's officers, furnishing of written legal opinions, review or preparation of all legal documents, leases, contracts, ordinances and the like that are used, adopted or entered into by the Authority, and legal review and approval, if appropriate, of the Authority's actions and documents;
    b. Representing the Authority or its officers at public hearings or other meetings as requested from time to time;
    c. Litigation services in state and federal courts and before administrative tribunals;
    d. Any and all other legal services that the Authority may deem necessary or desirable in connection with its activities.
2. **Appointment of General Counsel.** The Authority hereby appoints Martha D. Rice as General Counsel, and Robert N. Black and Autumn E. Luna as Deputy General Counsels.
3. **Compensation and Payment.** The Firm will submit itemized bills to the Authority on a monthly basis. The Authority will pay all, or the undisputed portion, of the bill within 30 days of receipt.
    a. **Compensation.** The Firm will bill the Authority on an hourly basis, in increments of 2/10th of an hour, based on the hourly rates set forth in **Exhibit A**.
    b. **Reimbursed Expenses.** The Authority will be responsible for payment of all reimbursable costs expended by the Firm to provide legal services to Authority. A list of reimbursable expense rates is attached hereto as **Exhibit A**.
    c. **Unreimbursed Expenses.** The Firm is responsible, without additional compensation, for all general overhead expenses incidental to the operation of a law practice, including, but not limited to, office rent, insurance policy premiums, bar membership dues, telephone, internet, office equipment, and other general supplies.
4. **Insurance Provisions.** The Firm will maintain in full force and effect a professional liability insurance policy that provides coverage in an amount no less than $1 million per claim and $1

million aggregate. The Firm will also maintain workers compensation insurance in amounts required by state law.

5. **Independent Contractor.** The Firm is an independent contractor. The Firm's partners and employees are not employees of the Authority and therefore not entitled to the rights, benefits, or protections of employees.
6. **Defense of Claims.** Even though the Firm's partners and employees are not employees of the Authority, the Authority agrees that those individuals serving as General Counsel and Deputy General Counsels are officers of the Authority, and solely for purposes of claims and the defense of claims against the General Counsel and Deputy General Counsels by third parties for claims arising from their performance as such, they will be treated as an employees of the Authority would be treated.
7. **Conflicts of Interest.** The Firm, its partners and employees will comply with all applicable federal, state and, local laws and regulations, including the conflict of interest provisions of Gov. Code Section 1090 and the Political Reform Act (Gov. Code Section 81000 et seq.).
8. **Termination of Services.** The Authority may terminate this Agreement, with or without cause upon written notice to the Firm. The Firm may terminate this Agreement upon thirty (30) days written notice to the Authority. In the event of termination by either party, the Authority will be responsible for payment of legal services rendered and costs incurred to the effective date of the termination. This Agreement will continue until its termination or modification by the parties.
9. **Amendments.** Any modification or amendment to this Agreement must be in writing and signed by both parties to be valid and effective.
10. **Entire Agreement.** This Agreement, including Exhibit A attached hereto, constitutes the complete and exclusive statement of the agreement between the parties. All prior written and oral communications, including correspondence, drafts, memoranda, and representations, are superseded by this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed at Crescent City, California on _____ ____, 2016

DEL NORTE SOLID WASTE MANAGEMENT AUTHORITY

_____

By:

Chair of the Board

ATTEST:

_____

Katherine Brewer, Clerk of the Board

BLACK & RICE LLP

Robert N. Black, Partner

Martha D. Rice, Partner

EXHIBIT A

Attorney Billing Rates

- Robert N. Black $205 / hour
- Martha D. Rice $205 / hour
- Autumn E. Luna $195 / hour

Reimbursable Expense Rates

This is not intended to be an exclusive list. Expenses that are not considered general overhead expenses and which are not listed herein, will be reimbursed on a cost basis. Any expenses advanced to a third-party by the Firm are subject to a 10% administration fee. The Firm will be reimbursed for the following expenses at the following rates:

- Paralegal $90 / hour
- Photocopies (B/W) 25¢ per page
- Photocopies (Color) 50¢ per page
- Travel* IRS rates
- Postage & Delivery Cost
- Overnight Delivery Cost
- Process Service Cost
- Depositions Cost
- Expert Fees Cost
- Consultant Fees Cost
- Public Notary Cost
- Fees Fixed by Law** Cost

**Travel expenses will not be incurred without prior approval of the client.*

***Fees fixed by law includes all fees paid by The Firm on behalf of the client that are set by state or local law, including recording fees, court filing fees, etc.*

ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA
DEL NORTE, EL DORADO, GLENN, IMPERIAL, INYO, LASSEN

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – MARY RAWSON, ALPINE COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

Rural Counties Environmental Services JOINT POWERS AUTHORITY

MADERA, MARIPOSA, MODOC, MONO, NEVADA, PLUMAS,
SIERRA, SISKIYOU, TEHAMA, TRINITY, TUOLUMNE

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – JIM MCHARGUE, AMADOR COUNTY
TAG VICE CHAIR – RACHEL ROSS, TEHAMA COUNTY
PROGRAM MANAGER – MARY PITTO

MEMORANDUM

To: ESJPA Members

From: Mary Pitto, Program Manager

Date: July 25, 2016

Re: ESJPA 2016-17 Dues

RECEIVED
JUL 28 2016
DNSWMA

Attached please find the annual dues invoice for participation in the Rural Counties' Environmental Services Joint Powers Authority (ESJPA) for the 2016-17 fiscal year. The annual dues have remained the same since 2005.

The ESJPA provides a forum for its 23 member counties' solid waste managers to share ideas and work collectively to resolve issues relevant to rural counties. During the year, the ESJPA conducts Board meetings and trainings to provide program support on solid waste related issues and opportunities that benefit the membership. The Board meetings also provide the members the valuable opportunity for direct contact with the Department of Resources Recycling and Recovery (CalRecycle) staff members, as well as other relevant regulatory agency staff and industry resources. Each of our members brings to the table unique perspectives, experience, and expertise that is valuable to the others.

The ESJPA meeting format includes morning speakers and review of current solid waste related legislation and regulatory issues and the afternoon Technical Advisor Group breakout sessions or workshops. These sessions provide a more interactive forum for the solid waste managers to get into more technical detail of important topics. The ESJPA's presentations and topics over this past 2015-16 year included:

- Presentations and discussions by state agency staff from CalRecycle regarding CalRecycle's Revised Enforcement Policy and Jurisdictional Reviews, Update on Covered Electronic Waste Regulations, Rubberized Pavement and Aggregate Grants, the State of Recycling and the Commodities Market; and from the State Water Resources Control Board presentations on the new Industrial Stormwater General Permit, the General Order for Compost Facilities, and the Strategic Storm Water Initiative.

- Special presentations and discussions from private industry and other organizations include Solid Waste Franchise Agreements given by R3 Consulting Group, Inc., the North State Rendering Company's Green Energy Program given by the owner, the Food Recovery Challenge given by the California Association of Food Banks, and the Challenges and Opportunities in Carpet Recycling given by CARE. In addition, representatives from the California Product Stewardship Council, the Carpet America Recycle Effort (CARE), PaintCare, and the Mattress Recycling Council regularly attend and give updates on their respective efforts.

6.5

1215 K STREET, SUITE 1650 SACRAMENTO, CA 95814 PHONE: 916-447-4806 FAX: 916-447-1667
WEB: WWW.ESJPA.ORG

- A presentation by an ESJPA colleague regarding Butte County's Mandatory Commercial Recycling Program (Ordinance. This presentation was particularly useful to the other member counties and we especially thank the presenter. In addition, the ESJPA consultant provides continually provides his insight on all solid waste issues, particularly with his expertise in household hazardous waste.

In addition to the ESJPA Board meetings, the ESJPA staff works actively on behalf of its member counties in the legislative and regulatory arenas on solid waste management issues of importance to our membership. Staff solicits feedback from and reports on the status to the ESJPA Board at its meetings.

- The ESJPA continues to identify and coordinate with RCRC legislative staff on legislation dealing with solid waste issues. RCRC legislative staff remains particularly active in several issue areas, especially dealing with extended producer responsibility, the bottle bill, organic composting requirements, and landfills.

- The ESJPA staff monitors and participates in various regulatory activities. This past year included the following:
  - ARB: Cap and Trade Proceeds, Draft Short-Lived Climate Pollutant Reduction Strategy, and the 2030 Target Scoping Plan;
  - CalRecycle: Monthly CalRecycle Meeting, Beverage Container Recycling Program Reform, Compostable Materials, Transfer/Processing Regulations, AB 1826 Mandatory Commercial Recycling, 2014 Disposal Facility-Based Characterization of Solid Waste in California, Valley and Butte Fire Cleanup, AB 876 Organics Reporting Requirement;
  - SWRCB: Storm Water Industrial General Permit; General Waste Discharge Requirements at Compost Waste Management; Water Quality and Landfill Waste Discharge Requirement Fees;
  - California Department of Food and Agriculture (CDFA): Safely Disposing Of Waste Meat, Poultry, and Fish Material;
  - Department Of Toxic Substances Control: Thermostat Recycling Program; Safer Consumer Products; Solar Panel Disposal; and the Covered Electronic Waste Recycling Program.

The ESJPA also provides technical assistance to its member counties by conducting surveys, providing specialty information and advice, responding to requests for assistance during the annual review process, participating in local meetings, and with regulatory and operational issues.

Looking ahead toward the upcoming year, we plan to continue to provide Board meeting presentations, discussions, and training opportunities on issues as they arise or as requested by our members. We expect the mandatory organics recycling and bottle bill reform to still be priority issues. We will continue to assist with the implementation of the paint, carpet, and mattress stewardship programs. We will also be responding to the many ongoing challenges regarding regulatory compliance that will inevitably arise. We anticipate this coming year to be active in the legislative arena. With support from RCRC, the ESJPA will continue to monitor and actively take positions on legislative and regulatory items of interest.

Your continued membership and active participation in the ESJPA is appreciated. It is through our collective efforts that we are able to be an effective organization. Please let me know if you have any suggestions that may help improve our organizational effectiveness or suggested topics for future meetings to enable the ESJPA to be fully responsive to your needs and expectations.

Rural Counties Environmental Services JOINT POWERS AUTHORITY

Environmental Services JPA
1215 K Street, Suite 1650
Sacramento, CA 95814
(916) 447-4806

Invoice Number:	0000008-IN
Invoice Date:	7/1/2016
Due Date:	7/1/2016

Bill To:

Del Norte County
Solid Waste Authority
1700 State Street
Crescent City, CA 95531

Contact: Ted Ward

Description	Quantity	Price	Amount
ESJPA Member Dues 2016-2017			6,000.00

Net Invoice:	6,000.00
Sales Tax:	0.00
Invoice Total:	**$ 6,000.00**

Del Norte Solid Waste Management Authority
1700 State Street, Crescent City, CA 95531
Phone (707) 465-1100 Fax (707) 465-1300
www.recycledelnorte.ca.gov
The Authority's mission is the management of Del Norte County solid waste and recyclable material in an environmentally sound, cost effective, efficient and safe manner while ensuring 100% regulatory compliance with law.

Staff Report

Date:	11 August 2016
To:	Commissioners of the Del Norte Abandoned Vehicle Abatement Service Authority
From:	Tedd Ward, M.S. – Director
File Number:	010203 - Abandoned Vehicle Abatement Service Authority
Topic:	Proposals received for Towing, Storage, Recovery and Disposal of Abandoned Vehicles.

Summary / Recommendation: That the Board take the following action:

1. **Accept proposal from Northcrest Auto Center and direct staff to complete negotiations and authorize appropriate signatures for the agreement for Towing, Storage, Recovery and Disposal of Abandoned Vehicles.**

Background: The one-year contract for Towing, Storage, Recovery and Disposal of Abandoned Vehicles with Northcrest Auto Center expired June 30, 2016. In order to encourage competition for these services, in July, Authority staff mailed out Requests for Proposal (RFP) to six Del Norte County businesses potentially capable of providing these services for a four-year time period of August 22, 2016 to August 31, 2020. Proposals were due on 09 August 2016. One proposal was received by the deadline from Northcrest Auto Center.

Analysis: The proposal submitted by Northcrest Auto Center meets all specifications contained in the RFP and is considered responsive however pricing is substantially more than that contained in the expired contract. Exhibit A shows the old and new price proposal.

Alternatives: Rejecting the proposal prolongs the periods when the AVA does not have a contractor available to tow abandoned vehicles.

Fiscal Impacts: The services provided under the AVA Towing agreement are the majority of services paid for by the AVA. Cost controls on these services are driven by the selection of a towing contractor based on comparison with competitive proposals from other potential contractors. Presently, the AVA budget is not included as part of the DNSWMA budget and has been managed by Del Norte County personnel for the past few years.

EXHIBIT B: Fees for Services

Contractor: Northcrest Auto Center

2015 Contract/*2016-2020 Proposed*				
Zone	Cars, pickups, motorcycles, vans, mini-motor homes, hitch-mount trailers	% Change	5th Wheel Trailers, Motorhomes, Buses, Or Large trucks	% Change
	$ per regular vehicle		$ per large vehicle	
Zone 1	100 / *115*	+15%	200 / *215*	+7.5%
Zone 2	55 / *65*	+18%	185 / *215*	+16%
Zone 3	100 / *115*	+ 15%	200 / *215*	+7.5%
Zone 4	45 / *55*	+22%	95 / *110*	+16%
Zone 5	145 / *175*	+21%	225 / *375*	+67%

Additional Charges Requiring Pre-Approval by Code Enforcement / Abatement Officer:

1. Winching (after first half-hour): $85 / *100* per hour
2. Extra Man: $ 55 / *85* per hour
3. Sublet Costs for Special Equipment or Services 30% (no change) over documented expenses
4. Secondary Tow to Curry Transfer in Brookings (Carpenterville Road): $245 / *450* per tow
5. Secondary Tow for non-motorized trailers and related materials to Del Norte County Transfer Station $95 / (no change) per tow
5. Flat-rate Additional Unloading Charge for transportation and unloading of AVA-related trash $75 / *110* per vehicle. Assessment of this flat rate must be pre-approved by the AVA Code Enforcement Officer and does not include disposal charges, which will be paid by the AVA directly.
6. Note that Code Enforcement Officer may specifically request use of and pre-approve payment for use of a "Landhaul" type flat-bed trailer and/or towing with a "Class D" tow truck.
   $275 / (no change) additional per-tow charge for using 'Landhaul' or 'Class D' truck

NORTHCREST AUTO CENTER

1165 McNamara Rd.

Crescent City, CA 95531

August 2, 2016

Del Norte Abandoned Vehicle Abatement Authority
1700 State St
Crescent City, CA 95531

Please find enclosed the copies of the Request for Proposals to provide towing, storage, recovery, and disposal of abandoned vehicles in Del Norte County.

Copies of Licenses and permits required;

Business License for the City of Crescent City

Business License for Brookings

Motor Carrier Permit

Transport Licenses and Permits for transporting vehicles outside of the State of California.

Apportioned Registration required for all tow trucks 26,000 GVWR for operating Interstate

Tow Truck Permit and Apportioned Registration required by the State of Oregon for all tow trucks 26,000 GVWR and under operating for hire in the State of Oregon

If you have any questions concerning any details of the services to be provided, please contact Steve Clay at 707-464-2146

Sincerely,

Steven H. Clay
Owner

NORTHCREST AUTO CENTER

1165 McNamara Rd.

Crescent City, CA 95531

August 2, 2016

FACILITY DESCRIPTION

ADDRESS:

Northcrest Auto Center
1165 McNamara Rd.
Crescent City, CA 95531

ASSESSOR'S PARCEL NUMBER:

17-041-56

COUNTY:

Del Norte County

NARATIVE OF CAPABILITIES

We have a total of 5 tow trucks; 3 Class A Car Carriers, 1 Class A tow truck, 1 Class B tow truck

We also have a Landoll trailer capable of towing RVs and buses that are not towable by a conventional tow truck or car carrier.

Our storage location is at 1165 McNamara Rd, Crescent City. We are able to store up to 100 vehicles including RVs.

EXHIBIT B: Fees for Services

Contractor: Northcrest Auto Center

Zone	Cars, pickups, motorcycles, vans, mini-motor homes, hitch-mount trailers	5th Wheel Trailers, Motorhomes, Buses, Or Large trucks
	$ per regular vehicle	$ per large vehicle
Zone 1	115.00	215.00
Zone 2	65.00	215.00
Zone 3	115.00	215.00
Zone 4	55.00	110.00
Zone 5	175.00	375.00

Additional Charges Requiring Pre-Approval by Code Enforcement / Abatement Officer:

1. Winching (after first half-hour): $ 100.00 per hour
2. Extra Man: $ 85.00 per hour
3. Sublet Costs for Special Equipment or Services % 30 over documented expenses
4. Secondary Tow to Curry Transfer in Brookings (Carpenterville Road): $ 450.00 per tow
5. Secondary Tow for non-motorized trailers and related materials to Del Norte County Transfer Station $ 95.00 per tow
5. Flat-rate Additional Unloading Charge for transportation and unloading of AVA-related trash $ 110.00 per vehicle. Assessment of this flat rate must be pre-approved by the AVA Code Enforcement Officer and does not include disposal charges, which will be paid by the AVA directly.
6. Note that Code Enforcement Officer may specifically request use of and pre-approve payment for use of a "Landhaul" type flat-bed trailer and/or towing with a "Class D" tow truck.
   $ 275.00 additional per-tow charge for using 'Landhaul' or 'Class D' truck

BUSINESS LICENSE – CITY OF CRESCENT CITY

377 J Street – Crescent City, CA 95531 – (707) 464-7483

LICENSE NUMBER: 04372

>>

Owner: STEVEN CLAY

Business Licensed: NORTHCREST AUTO CENTER

Business Address: NON-RESIDENT BUSINESS

>>

EXPIRATION DATE: 6/30/2017

THIS LICENSE MUST BE KEPT
IN A CONSPICUOUS PLACE

>> STEVEN CLAY
>> NORTHCREST AUTO CENTER
>> 1165 MC NAMARA RD
>> CRESCENT CITY CA 95531

Linda Leaver

Not valid unless signed by authorized representative of the City of Crescent City

The issuance of a Business License does not in any manner excuse compliance with any applicable Federal, State, or County laws or regulations.

The City of Brookings, Oregon

License No. 1385
Fee: 77.00

CITY BUSINESS LICENSE

Pursuant to Title 5 of The Brookings Municipal Code

Business Name: Northcrest Auto Center

To Conduct Business of: Towing Service

Located at: 1165 McNamara Rd

Date Issued: 10/1/2015 12:00:00 AM

Date Expires: 09/30/2016

City Recorder

Mayor

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY

DEPARTMENT OF MOTOR VEHICLES
MOTOR CARRIER SERVICES BRANCH MS G875
P.O. BOX 932370 Sacramento, CA. 94232-3700
(916) 657-8153

02/26/2009

STEVEN H CLAY
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

STATE OF CALIFORNIA DMV DEPARTMENT OF MOTOR VEHICLES
A Public Service Agency

NON-EXPIRING MOTOR CARRIER PERMIT
Combined Carrier

DEPARTMENT OF MOTOR VEHICLES
Motor Carrier Services Branch
P.O. BOX 932370 Sacramento, CA. 94232-3700

Valid From:	03/01/2009	Valid Through:	Non-Expiring
CA#:	0122300		

STEVEN H CLAY
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

The carrier named on this permit is subject to the Unified Carrier Registration Act (UCRA) of 2005, and is granted a non-expiring permit of the following classification:

For Hire
Individual

Not Valid for Intrastate Only Operations

Pmt Date:	N/A	Office #:	154
Account #:	13751	Tech ID:	CR
Sequence #:	0008	Amt Paid:	No Fee

!!!IMPORTANT REMINDERS!!!

1. This non-expiring Motor Carrier Permit (MCP) will remain valid as long as you continue to conduct interstate operations. The Unified Carrier Registration Act (UCRA) of 2005 exempts combined carriers (carriers who operate both intra and interstate) from MCP requirements.
2. Federal Motor Carrier Safety Administration insurance requirements must be maintained.
3. If you commence intrastate only operations, you must renew your MCP.

California Relay Telephone Service for the deaf or hearing impaired from TDD Phones: 1-800-735-2929; from Voice Phones: 1-800-735-2922

91

APPORTIONED REGISTRATION CAB CARD

STATE OF CALIFORNIA
DEPARTMENT OF MOTOR VEHICLES

A Public Service Agency

P.O. Box 932320 MS H160 Sacramento, CA 94232-3200 (916) 657-7971

OPERATOR/LESSEE/REGISTRANT
STEVEN H CLAY
DBA: NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

OWNER/LESSOR

ISSUED: 10/06/2015	EFFECTIVE: 11/01/2015	EXPIRES: 10/31/2016

Account	Fleet	Supp	
36436	001	0000	MX
TYPE OF CARRIER			
FOR HIRE			
Plate	Unit	Yr-Model	Make
CP24559	0000001	1991	GMC
Unladen Wt	Axles	Fuel Type	Body Type
21500	02	D	TK
VIN	Seats		
1GDM7H1J0MJ518950			

THE VEHICLE DESCRIBED HEREIN HAS BEEN APPORTIONED BETWEEN THE STATE OF CALIFORNIA AND THE JURISDICTIONS SHOWN BELOW. Canadian Provinces are shown in kilograms, Quebec is shown in axles, all other jurisdictions are shown in pounds. Buses may be identified by the number of seats. No jurisdictions are to be listed after the row of asterisks, or the card is invalid.

AL	27100	AB	12290	AZ	27100	AR	27100	BC	12290
CA	27100	CO	27100	CT	27100	DE	27100	DC	27100
FL	27100	GA	27100	ID	27100	IL	27100	IN	27100
IA	27100	KS	27100	KY	27100	LA	27100	ME	27100
MB	12290	MD	27100	MA	27100	MI	27100	MN	27100
MS	27100	MO	27100	MT	27100	NE	27100	NV	27100
NL	12290	NB	12290	NH	27100	NJ	27100	NM	27100
NY	27100	NC	27100	ND	27100	NS	12290	OH	27100
OK	27100	ON	12290	OR	27100	PA	27100	PE	12290
QC	2 AXL	RI	27100	SK	12290	SC	27100	SD	27100
TN	27100	TX	27100	UT	27100	VT	27100	VA	27100
WA	27100	WV	27100	WI	27100	WY	27100	***	*****
***	*****	***	*****	***	*****	***	*****	***	*****

This apportioned Cab Card must be carried in the vehicle at all times. All fees are due to the State of California on or before the expiration date listed above. The cab card is non-tranferable and must be surrendered with the license plate(s) if the vehicle is deleted from the fleet.

CARRIER RESPONSIBLE FOR SAFETY: USDOT 537204
STEVEN H CLAY
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

15A100615JR0020

107

APPORTIONED REGISTRATION CAB CARD

STATE OF CALIFORNIA
DEPARTMENT OF MOTOR VEHICLES
P.O. Box 932320 MS H160 Sacramento, CA 94232-3200 (916) 657-7971

A Public Service Agency

OPERATOR/LESSEE/REGISTRANT
STEVEN H CLAY
DBA: NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

OWNER/LESSOR

ISSUED: 10/06/2015	EFFECTIVE: 11/01/2015	EXPIRES: 10/31/2016

Account	Fleet	Supp	
36436	001	0000	
TYPE OF CARRIER			MX
FOR HIRE			
Plate	Unit	Yr-Model	Make
CP87799	107	2007	FORD
Unladen Wt	Axles	Fuel Type	Body Type
10100	02	D	TK
VIN	Seats		
3FRWX65B77V508425			

THE VEHICLE DESCRIBED HEREIN HAS BEEN APPORTIONED BETWEEN THE STATE OF CALIFORNIA AND THE JURISDICTIONS SHOWN BELOW. Canadian Provinces are shown in kilograms, Quebec is shown in axles, all other jurisdictions are shown in pounds. Buses may be identified by the number of seats. No jurisdictions are to be listed after the row of asterisks, or the card is invalid.

AL	26000	AB	11791	AZ	26000	AR	26000	BC	11791
CA	26000	CO	26000	CT	26000	DE	26000	DC	26000
FL	26000	GA	26000	ID	26000	IL	26000	IN	26000
IA	26000	KS	26000	KY	26000	LA	26000	ME	26000
MB	11791	MD	26000	MA	26000	MI	26000	MN	26000
MS	26000	MO	26000	MT	26000	NE	26000	NV	26000
NL	11791	NB	11791	NH	26000	NJ	26000	NM	26000
NY	26000	NC	26000	ND	26000	NS	11791	OH	26000
OK	26000	ON	11791	OR	26000	PA	26000	PE	11791
QC	4 AXL	RI	26000	SK	11791	SC	26000	SD	26000
TN	26000	TX	26000	UT	26000	VT	26000	VA	26000
WA	26000	WV	26000	WI	26000	WY	26000	***	*****
***	*****	***	*****	***	*****	***	*****	***	*****

This apportioned Cab Card must be carried in the vehicle at all times. All fees are due to the State of California on or before the expiration date listed above. The cab card is non-tranferable and must be surrendered with the license plate(s) if the vehicle is deleted from the fleet.

CARRIER RESPONSIBLE FOR SAFETY: USDOT 537204
STEVEN H CLAY
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

15A100615JR0023

OREGON

TOW BUSINESS CERTIFICATE 923

PLATE NUMBER	TITLE NUMBER	PROCESS DATE	EXPIRATION DATE	FUEL TYPE	EQUIPMENT NO.
TW22062	REGISTONLY	032316	MAR 31,2017	DIESEL	

YEAR	MAKE	STYLE	MODEL	VEHICLE IDENTIFICATION NUMBER	WEIGHT/LENGTH
2007	FORD	TK	F65	3FRWX65B77V508425	

TITLE BRANDS - NONE -

ODOMETER READING	ODOMETER DATE

ODOMETER MESSAGE

7061QPE

OWNER/
LESSEE

CLAY, STEVEN H
DBA NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY CA 95531

NEW
ADDRESS

COUNTY OF RESIDENCE: 60

COUNTY OF USE:

109

APPORTIONED REGISTRATION CAB CARD

STATE OF CALIFORNIA
DEPARTMENT OF MOTOR VEHICLES
P.O. Box 932320 MS H160 Sacramento, CA 94232-3200 (916) 657-7971

A Public Service Agency

OPERATOR/LESSEE/REGISTRANT
STEVEN H CLAY
DBA: NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

OWNER/LESSOR

ISSUED: 10/06/2015	EFFECTIVE: 11/01/2015	EXPIRES: 10/31/2016

Account	Fleet	Supp	
36436	001	0000	
TYPE OF CARRIER FOR HIRE			MX
Plate	Unit	Yr-Model	Make
CP92770	109	2009	FORD
Unladen Wt	Axles	Fuel Type	Body Type
10800	02	D	TK
VIN 3FRWX65F19V096427	Seats		

THE VEHICLE DESCRIBED HEREIN HAS BEEN APPORTIONED BETWEEN THE STATE OF CALIFORNIA AND THE JURISDICTIONS SHOWN BELOW. Canadian Provinces are shown in kilograms, Quebec is shown in axles, all other jurisdictions are shown in pounds. Buses may be identified by the number of seats. No jurisdictions are to be listed after the row of asterisks, or the card is invalid.

AL	26000	AB	11791	AZ	26000	AR	26000	BC	11791
CA	26000	CO	26000	CT	26000	DE	26000	DC	26000
FL	26000	GA	26000	ID	26000	IL	26000	IN	26000
IA	26000	KS	26000	KY	26000	LA	26000	ME	26000
MB	11791	MD	26000	MA	26000	MI	26000	MN	26000
MS	26000	MO	26000	MT	26000	NE	26000	NV	26000
NL	11791	NB	11791	NH	26000	NJ	26000	NM	26000
NY	26000	NC	26000	ND	26000	NS	11791	OH	26000
OK	26000	ON	11791	OR	26000	PA	26000	PE	11791
QC	3 AXL	RI	26000	SK	11791	SC	26000	SD	26000
TN	26000	TX	26000	UT	26000	VT	26000	VA	26000
WA	26000	WV	26000	WI	26000	WY	26000	***	*****
***	*****	***	*****	***	*****	***	*****	***	*****

This apportioned Cab Card must be carried in the vehicle at all times. All fees are due to the State of California on or before the expiration date listed above. The cab card is non-tranferable and must be surrendered with the license plate(s) if the vehicle is deleted from the fleet.

CARRIER RESPONSIBLE FOR SAFETY: USDOT 537204
STEVEN H CLAY
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

15A100615JR0022

OREGON

TOW BUSINESS CERTIFICATE

924

PLATE NUMBER	TITLE NUMBER	PROCESS DATE	EXPIRATION DATE	FUEL TYPE	EQUIPMENT NO.
TW22102	REGISTONLY	032316	MAR 31,2017	DIESEL	

YEAR	MAKE	STYLE	MODEL	VEHICLE IDENTIFICATION NUMBER	WEIGHT/LENGTH
2009	FORD	TK	F65	3FRWX65F19V096427	

TITLE BRANDS - NONE -

ODOMETER READING	ODOMETER DATE

ODOMETER MESSAGE

7061QPE

OWNER/
LESSEE

CLAY, STEVEN H
DBA NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY CA 95531

NEW
ADDRESS

COUNTY OF RESIDENCE: 60

COUNTY OF USE:

APPORTIONED REGISTRATION CAB CARD

STATE OF CALIFORNIA
DEPARTMENT OF MOTOR VEHICLES
P.O. Box 932320 MS H160 Sacramento, CA 94232-3200 (916) 657-7971

A Public Service Agency

OPERATOR/LESSEE/REGISTRANT
STEVEN H CLAY
DBA: NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

OWNER/LESSOR

ISSUED: 10/06/2015	EFFECTIVE: 11/01/2015	EXPIRES: 10/31/2016

Account	Fleet	Supp	
36436	001	0000	
TYPE OF CARRIER FOR HIRE			MX
Plate CP87798	Unit 13	Yr-Model 2013	Make INTL
Unladen Wt 10800	Axles 02	Fuel Type D	Body Type TK
VIN 1HTMMAAL6DH184522	Seats		

THE VEHICLE DESCRIBED HEREIN HAS BEEN APPORTIONED BETWEEN THE STATE OF CALIFORNIA AND THE JURISDICTIONS SHOWN BELOW. Canadian Provinces are shown in kilograms, Quebec is shown in axles, all other jurisdictions are shown in pounds. Buses may be identified by the number of seats. No jurisdictions are to be listed after the row of asterisks, or the card is invalid.

AL	26000	AB	11791	AZ	26000	AR	26000	BC	11791
CA	26000	CO	26000	CT	26000	DE	26000	DC	26000
FL	26000	GA	26000	ID	26000	IL	26000	IN	26000
IA	26000	KS	26000	KY	26000	LA	26000	ME	26000
MB	11791	MD	26000	MA	26000	MI	26000	MN	26000
MS	26000	MO	26000	MT	26000	NE	26000	NV	26000
NL	11791	NB	11791	NH	26000	NJ	26000	NM	26000
NY	26000	NC	26000	ND	26000	NS	11791	OH	26000
OK	26000	ON	11791	OR	26000	PA	26000	PE	11791
QC	4 AXL	RI	26000	SK	11791	SC	26000	SD	26000
TN	26000	TX	26000	UT	26000	VT	26000	VA	26000
WA	26000	WV	26000	WI	26000	WY	26000	***	*****
***	*****	***	*****	***	*****	***	*****	***	*****

This apportioned Cab Card must be carried in the vehicle at all times. All fees are due to the State of California on or before the expiration date listed above. The cab card is non-tranferable and must be surrendered with the license plate(s) if the vehicle is deleted from the fleet.

CARRIER RESPONSIBLE FOR SAFETY: USDOT 537204
STEVEN H CLAY
1165 MCNAMARA RD
CRESCENT CITY, CA 95531

15A100615JR0021

PLATE NUMBER	TITLE NUMBER	FUEL TYPE	FARM ID NO.	NEW EXPIRATION DATE
TW22061	REGISTONLY	DIESEL		MAR 31, 2017

YEAR	MAKE	STYLE	MODEL	VEHICLE IDENTIFICATION NUMBER	HVUT DATE	
2013	INTL	TK		1HTMMAAL6DH184522		FEE

EQUIPMENT NO.	WEIGHT/LENGTH	TITLE BRANDS	
		- NONE -	$17.00

ODOMETER READING	ODOMETER DATE	ODOMETER MESSAGE

*CLAY, STEVEN H
NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY CA 95531-8501

DRIVER AND MOTOR VEHICLE SERVICES · DEPARTMENT OF TRANSPORTATION · OREGON

COUNTY OF RESIDENCE COUNTY OF USE

NEW ADDRESS (HOUSE NUMBER, STREET, CITY, STATE, ZIP CODE)	VALIDATING STAMP	
	NEW PLATE NUMBER	NEW STICKER NUMBER

CUSTOMER COPY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/2/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
YouZoom Insurance Services, Inc
6900 College Blvd
Ste 1000
Overland Park KS 66211

CONTACT NAME:
PHONE (A/C, No, Ext): 888-240-8803 FAX (A/C, No): 877-835-1833
E-MAIL ADDRESS: AMServiceCenter@arrowheadgrp.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : American Guarantee and Liability In	26247
INSURER B : Zurich American Insurance Company	16535
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED NORTAUT-41
CLAY, STEVE
DBA NORTHCREST AUTO CENTER
1165 MCNAMARA RD
CRESCENT CITY CA 95531

COVERAGES **CERTIFICATE NUMBER:** 1066050560 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			CPO 1638475-00	1/31/2016	1/31/2017	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
							MED EXP (Any one person)	$5,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			CPO 1638475-00	1/31/2016	1/31/2017	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	ANY AUTO						BODILY INJURY (Per person)	$
	X ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
B	Garage Keepers*			CPO 1638475-00	1/31/2016	1/31/2017	Limit	270,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

*Garage Keepers includes On-Hook coverage.

CERTIFICATE HOLDER

Del Norte Solid Waste
Management Authority
1700 State Street
Cresent City CA 95531

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
YouZoom Insurance Services, Inc.

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