Oregon
John A. Kitzhaber, MD, Governor

Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1271
503-986-0900
FAX 503-986-0904

January 27, 2011

BRUCE NIERMEYER #1522
CASCADE DRILLING INC
13600 SE AMBLER RD
CLACKAMAS OR 97015

FINAL ORDER

Dear Bruce:

The Special Standards Request Form you submitted for owner: Powell Distributing, Start Card number 1012359 (MW5), is hereby approved for the following: You may abandon this well as described on your Special Standards Request Form. *Bentonite grout may only be used to abandon the portion of the well that is below the static water level.* Above the static water level another approved sealing material must be used. Your Special Standards Request Form is enclosed. All other standards must be adhered to.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions regarding this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrd.state.or.us.

Sincerely,

Kristopher Byrd, Coordinator
Well Construction Program
Well Construction and Compliance Section

enclosure

cc: Bill Ferber, W Region Manager
File

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Special Standards
Request Form

REQUEST FOR WRITTEN APPROVAL TO USE CONSTRUCTION METHODS NOT INCLUDED IN OREGON ADMINISTRATIVE RULES 690-200 THROUGH 690-240

Before the request can be considered, this form must be completed. Requests shall be submitted to the Well Construction Program Coordinator, Water Resources Department, 725 Summer Street NE, Suite A, Salem OR 97301-1266. Requests may also be considered by the appropriate Regional Manager.

Date of request: 26TH OF JANUARY 2011 **Oral approval date (if applicable):** _____

Bonded Well Constructor (**name, license #, and mailing address**): Bruce Niermeyer - 1522

13600 SE AMBLER RD, CLACKAMAS, OR 97015

(1) Location of Well: SW 1/4 NW 1/4 Tax lot 600 Section 19,
Township 7S, Range 2WE, MARION County
Address at well site: 1705 LANCASTER DRIVE N.E.
SALEM, OREGON 97305

(2) Start Card Number(s)(for work to be done): 1012357~1012359

(3) Name and Address of Land Owner: POWELL DISTRIBUTING
9125 NORTH BURRAGE PORTLAND, OREGON 97217

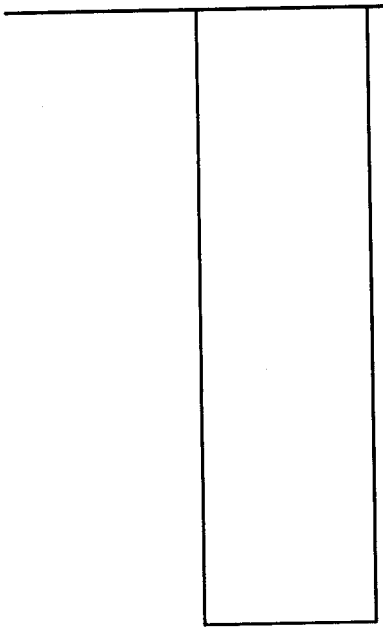
(4) Distance to the nearest septic tank, drainfield, closed sewage line (if water supply well)
UNKNOWN

(5) The unusual site conditions which necessitate this request: THE CLIENT WOULD LIKE TO ABANDON THE WELLS IN PLACE
WELL DATA IS ATTACHED WITH LOG'S

(6) The proposed construction methods that the bonded well constructor believes will be adequate for this well: (attach additional pages if needed)
CASCADE WOULD FILL THE WELL CASING FROM THE BOTTOM UP WITH BENTONITE GROUT
REMOVE THE MONUMENT AND PATCH THE SURFACE

PI1037-5215

(7) Diagram showing the pertinent features of the proposed well design and construction:
(attach additional pages if needed)



Concrete Seal 0 to 1'

Bentonite Seal 1' to T.D.

Blank Casing _____ to _____

Well Screen _____ to _____

Filter Pack _____ to _____

Well Diameter 1.5"

Total Depth 3 WELLS TOTAL
1 TO 20'
2 TO 25' BGS.

PLEASE NOTE:

(1) The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

(2) If it should be determined at some future date that the well, due to its construction, is allowing ground water contamination, waste or loss of artesian pressure, the undersigned shall return to the site and rectify the problem.

(3) If oral approval was granted, a written request must be submitted to the Department either within three (3) working days of the date of oral approval or prior to the completion of the associated well work. Failure to submit a written request as described above may void prior oral approval.

I have read and understand the above information. I further attest that the information provided is accurate to the best of my knowledge.

Bonded Constructor Signature: _____

MAR 607523

STATE OF OREGON
MONITORING WELL REPORT

(as required by ORS 537.765 & OAR 690-240-095)

Instructions for completing this report are on the last page of this form.

Well I.D. #: L 89790

Start Card #: 194009

(1) OWNER/PROJECT:

WELL NO. MW-1 (MW-5)

Name POWELL DISTRIBUTING

Address 9125 NORTH BURRAGE

City PORTLAND State OREGON Zip 97217

(2) TYPE OF WORK:

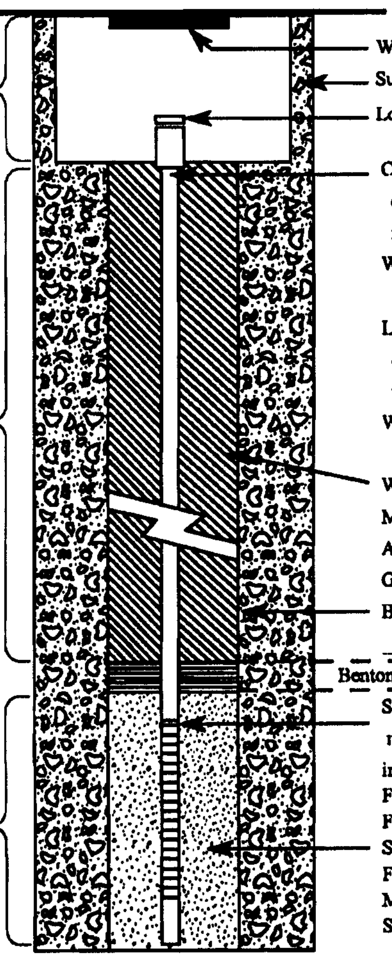
☒ New construction ☐ Alteration (Repair/Recondition)
☐ Conversion ☐ Deepening ☐ Abandonment

(3) DRILLING METHOD:

☐ Rotary Air ☐ Rotary Mud ☐ Cable
☐ Hollow Stem Auger ☒ Other PUSH PROBE

(4) BORE HOLE CONSTRUCTION:

Special Standards Yes ☐ No ☒ Depth of completed well 20' ft.



Vault 0 ft. TO 1 ft.

Seal 1 ft. TO 4 ft.

Filter pack 4 ft. TO 20 ft.

Casing
diameter 1.5 in.
material PVC
Welded ☐ Threaded ☒ Glued ☐

Liner
diameter 1.5 in.
material PVC
Welded ☐ Threaded ☐ Glued ☐

Well Seal:
Material CHIPS
Amount 10lbs.
Grout Weight

Borehole diameter 4 in.

Bentonite Plug at least 3 ft. thick

Screen
material PVC
interval(s):
From 4 To 20
From To
Slot size .01 in.

Filter Pack:
Material SAND 10/20
Size 1.5 in.

(5) WELL TEST:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Permeability ______ Yield ______ GPM

Conductivity ______ pH ______

Temperature of Water 56 °F Depth artesian flow found ______ ft.

Was water analysis done? ☒ Yes ☐ No

By whom?

Depth of strata to be analyzed. From ______ ft. to ______ ft.

Remarks

Name of supervising Geologist/Engineer

(6) LOCATION OF WELL By legal description

Well Location: County MARION

Township 7S S Range 2W W Section 19

SW ¼ of NW ¼ of above section.

Street address of well location 1705 LANCASTER DR NE SALEM, OR 97305

Tax lot number of well location 600

ATTACH MAP WITH LOCATION IDENTIFIED. Map shall include approximate scale and north arrow.

(7) STATIC WATER LEVEL:

12.5' Ft. below land surface Date 7/12/07

Artesian Pressure ______ lb/sq in. Date ______

(8) WATER BEARING ZONES:

Depth at which water was first found 12.5'

From	To	Est. Flow Rate	SWL

(9) WELL LOG:

Ground elevation ______

Material	From	To	SWL
CONCRETE	0	1	
SILTY SAND	1	20	

RECEIVED
AUG 16 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 7/12/07 Completed 7/12/07

(unbonded) Monitor Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.

Signed [signature] MWC Number 10423 Date 7/12/07

(bonded) Monitor Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed [signature] MWC Number 1522 Date JUL 19 2007

New 350 1010 80

October 2003 ENF

MAR 60753

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-095)

Instructions for completing this report are on the last page of this form.

Well I.D. #: L 89791

Start Card #: 194010

(1) OWNER/PROJECT:

WELL NO. MW-2 (MW-4)

Name POWELL DISTRIBUTING

Address 9125 NORTH BURRAGE

City PORTLAND State OREGON Zip 97217

(2) TYPE OF WORK:

☒ New construction ☐ Alteration (Repair/Recondition)

☐ Conversion ☐ Deepening ☐ Abandonment

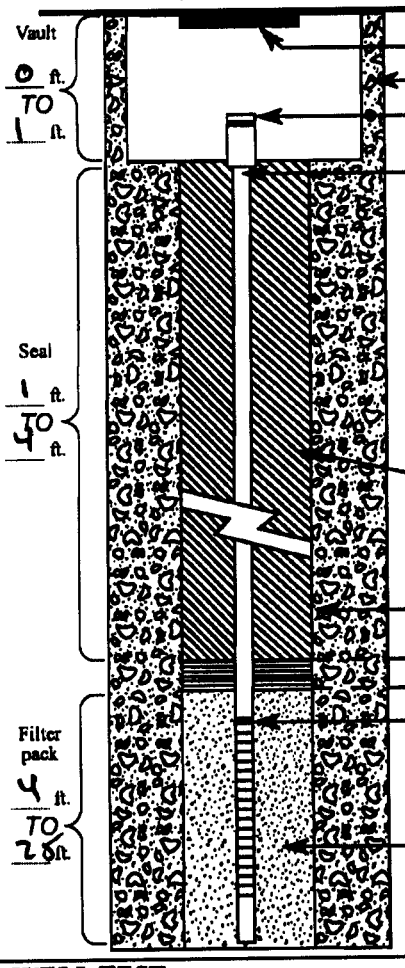
(3) DRILLING METHOD:

☐ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Hollow Stem Auger ☒ Other PUSH PROBE

(4) BORE HOLE CONSTRUCTION:

Special Standards ☐ Yes ☒ No Depth of completed well 25 ft.



Water-tight Cover

Surface flush vault

Locking cap

Casing
diameter 1.5 in.
material PVC
Welded ☐ Threaded ☒ Glued ☐

Liner
diameter _____ in.
material _____
Welded ☐ Threaded ☐ Glued ☐

Well Seal:
Material CHIPS
Amount 10 lbs.
Grout Weight _____

Borehole diameter
4 in.

Bentonite Plug at least 3 ft. thick

Screen
material PVC
interval(s):
From 4 To 25
From _____ To _____
Slot size .010 in.

Filter Pack:
Material SAND 10/20
Size 1.5 in.

(5) WELL TEST:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Permeability _____ Yield _____ GPM

Conductivity _____ pH _____

Temperature of Water 56 °F Depth artesian flow found _____ ft.

Was water analysis done? ☒ Yes ☐ No

By whom? _____

Depth of strata to be analyzed. From _____ ft. to _____ ft.

Remarks _____

Name of supervising Geologist/Engineer _____

October 2003 EMF

(6) LOCATION OF WELL By legal description

Well Location: County MARION

Township 7S S Range 2W W Section 19

SW ¼ of NW ¼ of above section.

Street address of well location 1705 LANCASTER DR NE SALEM, OR 97305

Tax lot number of well location 600

ATTACH MAP WITH LOCATION IDENTIFIED. Map shall include approximate scale and north arrow.

(7) STATIC WATER LEVEL:

125 Ft. below land surface Date 7/12/07

Artesian Pressure _____ lb/sq in. Date _____

(8) WATER BEARING ZONES:

Depth at which water was first found _____

From	To	Est. Flow Rate	SWL

(9) WELL LOG:

Ground elevation _____

Material	From	To	SWL
CONCRETE	0	1	
SILTY SAND	1	25	

RECEIVED
AUG 16 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 7/12/07 Completed 7/12/07

(unbonded) Monitor Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.

Signed _____ MWC Number 10423

Date 7/12/07

(bonded) Monitor Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed _____ MWC Number 1522

Date JUL 19 2007

NEW SC 10231 ST

MAR 60756 MAR 60763

STATE OF OREGON
MONITORING WELL REPORT

(as required by ORS 537.765 & OAR 690-240-095)

Instructions for completing this report are on the last page of this form.

Well I.D. #: L L89794

Start Card #: 194012

(1) OWNER/PROJECT:

WELL NO. MW-5 (MW-3)

Name POWELL DISTRIBUTING

Address 9125 NORTH BURRAGE

City PORTLAND State OREGON Zip 97217

(2) TYPE OF WORK:

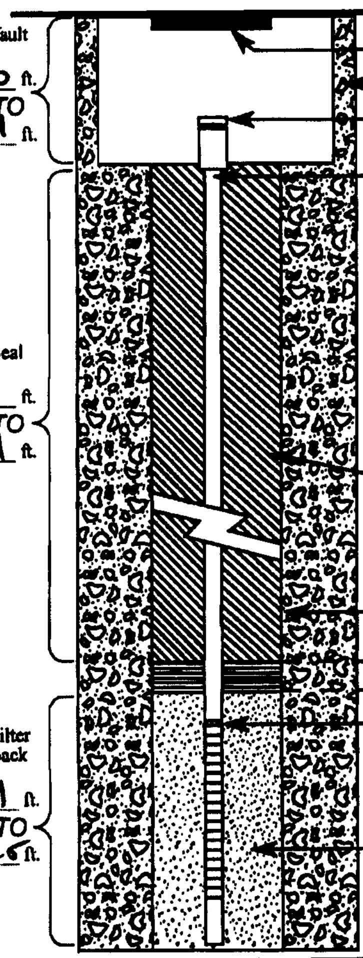
- [x] New construction
- [ ] Alteration (Repair/Recondition)
- [ ] Conversion
- [ ] Deepening
- [ ] Abandonment

(3) DRILLING METHOD:

- [ ] Rotary Air
- [ ] Rotary Mud
- [ ] Cable
- [ ] Hollow Stem Auger
- [x] Other PUSH PROBE

(4) BORE HOLE CONSTRUCTION:

Special Standards Yes [ ] No [x] Depth of completed well 25 ft.



Vault 0 ft. TO 1 ft.

Seal 1 ft. TO 4 ft.

Filter pack 4 ft. TO 25 ft.

Water-tight Cover

Surface flush vault

Locking cap

Casing diameter 1.5 in. material PVC

Welded [ ] Threaded [x] Glued [ ]

Liner diameter ______ in. material ______

Welded [ ] Threaded [x] Glued [ ]

Well Seal: Material CHIPS Amount 10 lbs.

Grout Weight ______

Borehole diameter 4 in.

Bentonite Plug at least 3 ft. thick

Screen material PVC

interval(s): From 4 To 25

From ______ To ______

Slot size 0.010 in.

Filter Pack: Material SAND 10/20 Size 1.5 in.

(5) WELL TEST:

- [ ] Pump
- [ ] Bailer
- [ ] Air
- [ ] Flowing Artesian

Permeability ______ Yield ______ GPM

Conductivity ______ pH ______

Temperature of Water 56 °F Depth artesian flow found ______ ft.

Was water analysis done? [x] Yes [ ] No

By whom? ______

Depth of strata to be analyzed. From ______ ft. to ______ ft.

Remarks ______

Name of supervising Geologist/Engineer ______

October 2008 EMF

(6) LOCATION OF WELL By legal description

Well Location: County MARION

Township 7S S Range 2W W Section 19

SW ¼ of NW ¼ of above section.

Street address of well location 1705 LANCASTER DR NE SALEM, OR 97305

Tax lot number of well location 600

ATTACH MAP WITH LOCATION IDENTIFIED. Map shall include approximate scale and north arrow.

(7) STATIC WATER LEVEL:

13 Ft. below land surface Date 7/13/07

Artesian Pressure ______ lb/sq in. Date ______

(8) WATER BEARING ZONES:

Depth at which water was first found ______

From	To	Est. Flow Rate	SWL

(9) WELL LOG:

Ground elevation ______

Material	From	To	SWL
GRAVEL	0	1	
SILTY SAND	1	25	

MAR 60363

RECEIVED

AUG 16 2007

WATER RESOURCES DEPT SALEM, OREGON

Date started 7/13/07 Completed 7/13/07

(unbonded) Monitor Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.

Signed [signature] MWC Number 10423 Date 7/13/07

(bonded) Monitor Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed [signature] MWC Number 1522

Date JUL 19 2007

OREGON advanced site map Go

Water Resources Department

P11037-5215
3 - 20' 1" MW
Decommission

Online Start Card Purchase Receipt
1/25/2011

MICHAEL BRUCE NIERMEYER;
CASCADE DRILLING LP

The online purchase of the following start cards has been processed. Please print this for your records.

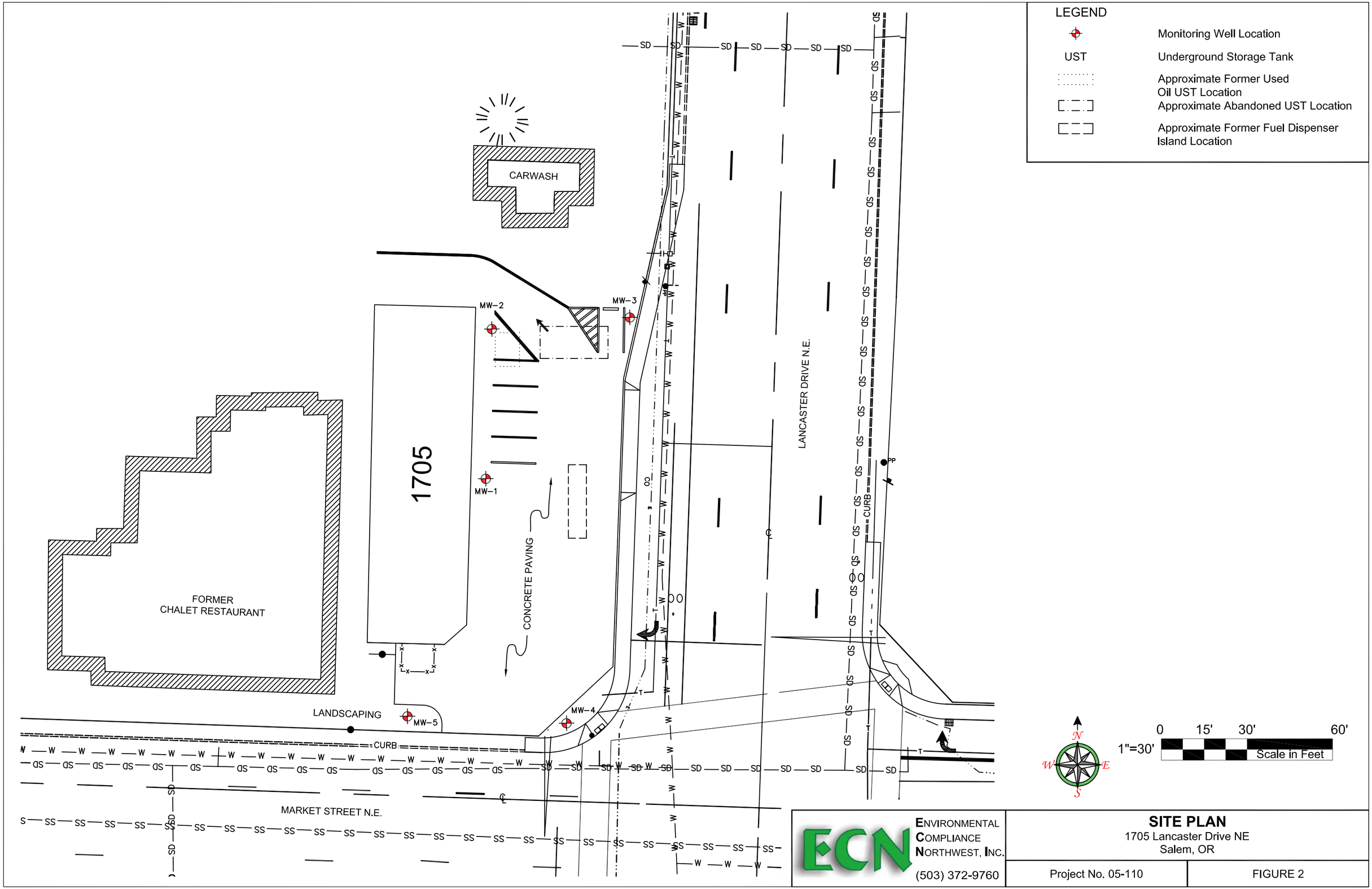
SC #	Well Type	Company	First Name	Last Name	Street	City	State	Zip	County	Street of Well	Taxlot	Fee
1012359	Monitor	POWELL DISTRIBUTING CO., INC.	P11037-5215		P.O. BOX 17160 KENTON STATION	PORTLAND	OR	97217	MARI	1705 LANCASTER DR NE, SALEM, OR	600	$0.00
1012357	Monitor	POWELL DISTRIBUTING CO., INC.	P11037-5215		P.O. BOX 17160 KENTON STATION	PORTLAND	OR	97217	MARI	1705 LANCASTER DR NE, SALEM, OR	600	$0.00
1012358	Monitor	POWELL DISTRIBUTING CO., INC.	P11037-5215		P.O. BOX 17160 KENTON STATION	PORTLAND	OR	97217	MARI	1705 LANCASTER DR NE, SALEM, OR	600	$0.00

MW-1 (MW-5)

MW2 (MW-4)

MW-5 (MW-3)

Return to Start Card Cart
Return to Main Menu

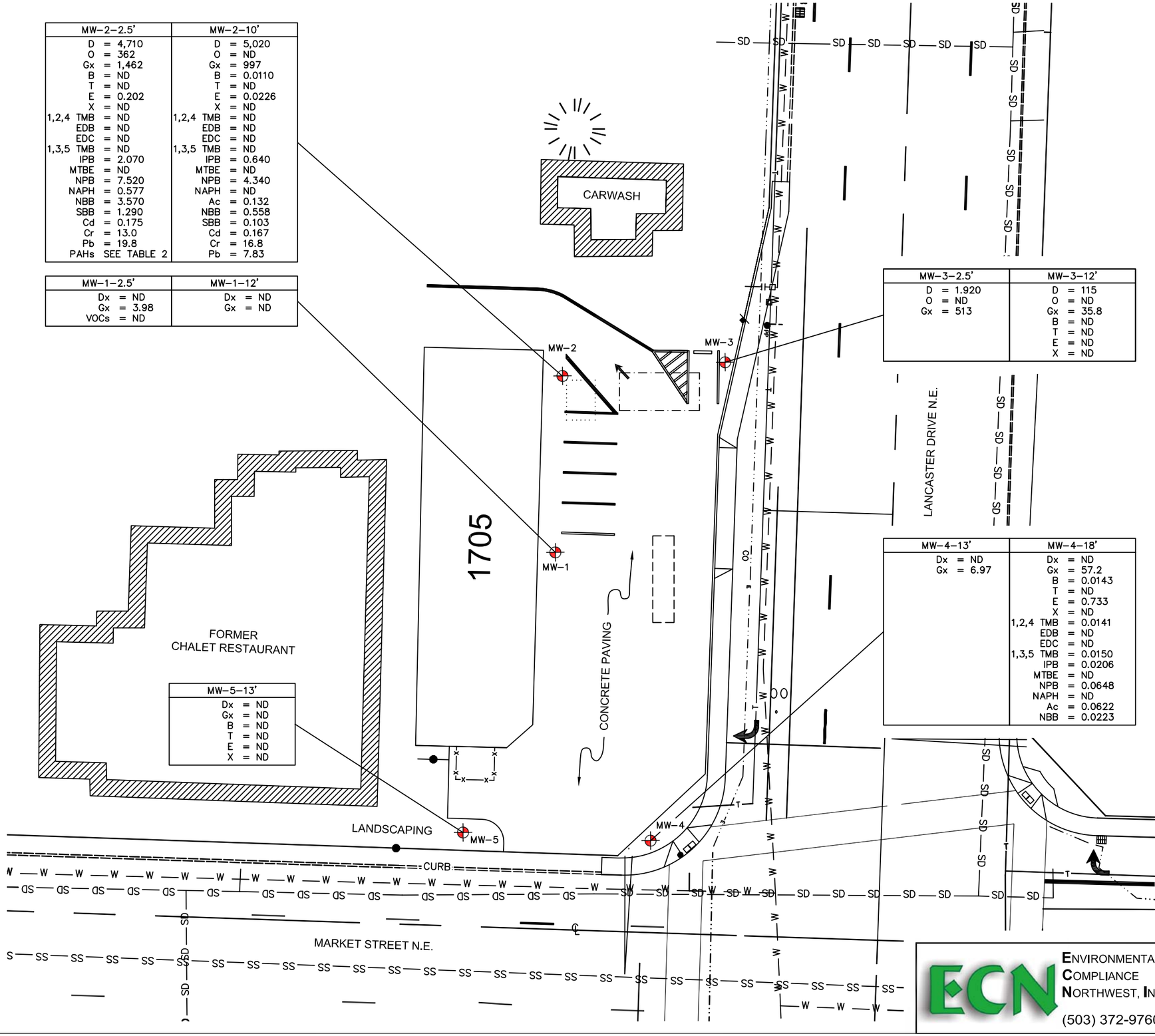


ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.
(503) 372-9760

SITE PLAN
1705 Lancaster Drive NE
Salem, OR

Project No. 05-110

FIGURE 2



LEGEND

⊕	Monitoring Well Location
UST	Underground Storage Tank
	Approximate Former Used Oil UST Location
	Approximate Abandoned UST Location
	Approximate Former Fuel Dispenser Island Location
VOCs	Volatile Organic Compounds
RBDM VOCs	Risk-based Decision Making Volatile Organic Compounds
1,2,4 TMB	1,2,4 Trimethylbenzene
EDB	Ethylene Dibromide
EDC	Ethylene Dichloride
1,3,5 TMB	1,3,5 Trimethylbenzene
IPB	Isopropylbenzene
B	Benzene
T	Toulene
E	Ethylbenzene
X	Total Xylenes
MTBE	Methyl Tertiary Butyl Ether
NPB	N-Propylbenzene
NAPH	Naphthalene
Ac	Acetone
NBB	N-Butylbenzene
SBB	Sec-Butylbenzene
Cd	Cadmium
Cr	Chromium
Pb	Lead
Dx	Diesel- and Lube Oil-range Hydrocarbons
D	Diesel-range Hydrocarbons
O	Lube Oil-range Hydrocarbons
Gx	Gasoline-range Hydrocarbons
PAHs	Polynuclear Aromatic Hydrocarbons
ND	Not detected at or above the laboratory reporting limit

Results are in milligrams per kilogram (mg/kg)

N W E S

0 15' 30' 60'

1"=30' Scale in Feet

ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.

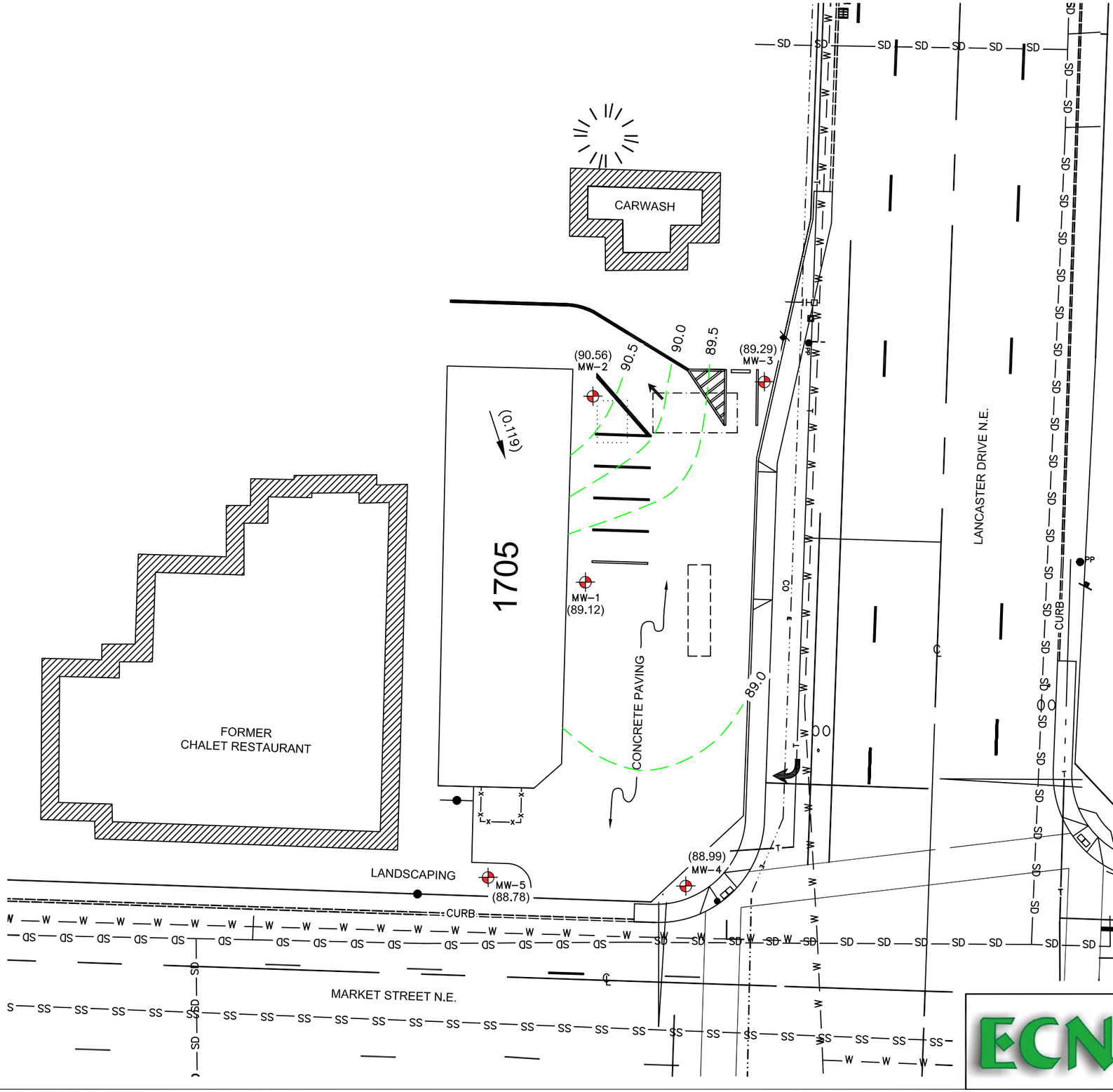
(503) 372-9760

SOIL ANALYTICAL RESULTS MAP

1705 Lancaster Drive NE
Salem, OR

Project No. 05-110

FIGURE 3



LEGEND

- Monitoring Well Location
- UST — Underground Storage Tank
- Approximate Former Used Oil UST Location
- Approximate Abandoned UST Location
- Approximate Former Fuel Dispenser Island Location
- (90.56) — Groundwater Elevation In Feet in Reference to an Aribtrary Benchmark
- 90.5 — Groundwater Elevation Contour In Feet
- (0.119) — Approximate Groundwater Flow Direction and Gradient in Feet per Foot

N W E S

1"=30'

0 15' 30' 60'

Scale in Feet

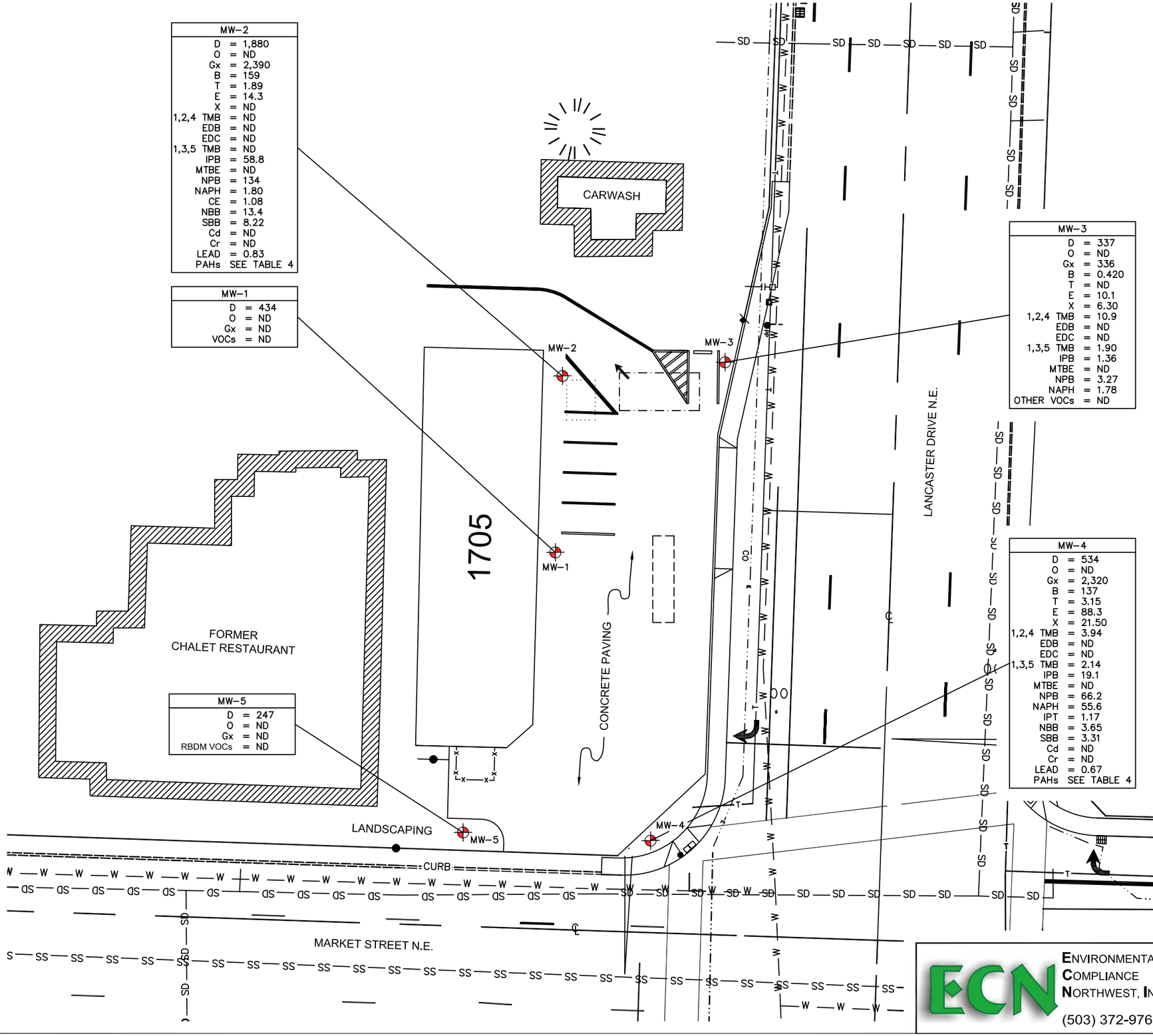
ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.
(503) 372-9760

GROUNDWATER CONTOUR MAP

1705 Lancaster Drive NE
Salem, OR

Project No. 05-110

FIGURE 4



LEGEND

⊕	Monitoring Well Location
UST	Underground Storage Tank
	Approximate Former Used Oil UST Location
	Approximate Abandoned UST Location
	Approximate Former Fuel Dispenser Island Location
VOCs	Volatile Organic Compounds
RBDM VOCs	Risk-based Decision Making Volatile Organic Compounds
1,2,4 TMB	1,2,4 Trimethylbenzene
EDB	Ethylene Dibromide
EDC	Ethylene Dichloride
1,3,5 TMB	1,3,5 Trimethylbenzene
IPB	Isopropylbenzene
B	Benzene
T	Toulene
E	Ethylbenzene
X	Total Xylenes
MTBE	Methyl Tertiary Butyl Ether
NPB	N-Propylbenzene
NAPH	Naphthalene
CE	Chloroethane
IPT	Isopropyltoluene
NBB	N-Butylbenzene
SBB	Sec-Butylbenzene
Cd	Dissolved Cadmium
Cr	Dissolved Chromium
LEAD	Lead
Dx	Diesel- and Lube Oil-range Hydrocarbons
D	Diesel-range Hydrocarbons
O	Lube Oil-range Hydrocarbons
Gx	Gasoline-range Hydrocarbons
PAHs	Polynuclear Aromatic Hydrocarbons
ND	Not detected at or above the laboratory reporting limit

Results are in micrograms per liter (µg/L)

N W E S

1"=30'

0 15' 30' 60'

Scale in Feet

ECN Environmental Compliance Northwest, Inc.
(503) 372-9760

GROUNDWATER ANALYTICAL RESULTS MAP

1705 Lancaster Drive NE
Salem, OR

Project No. 05-110

FIGURE 5

MAR 60756 3

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-095)

Instructions for completing this report are on the last page of this form.

Well I.D. #: L L89794

Start Card #: 194012

(1) OWNER/PROJECT:
WELL NO. MW-5

Name POWELL DISTRIBUTING

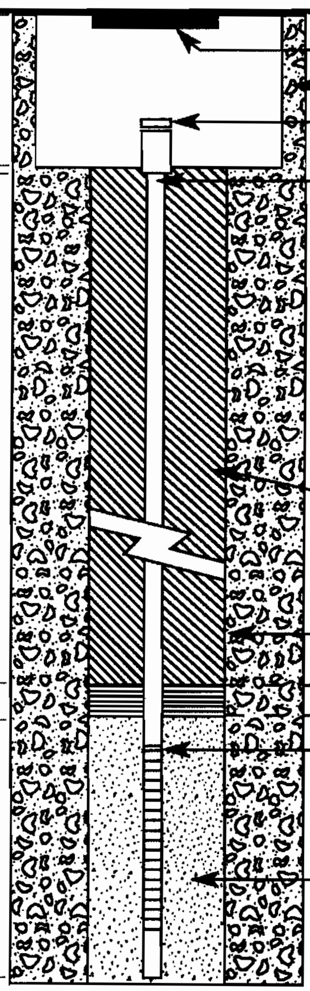
Address 9125 NORTH BURRAGE

City PORTLAND State OREGON Zip 97217

(2) TYPE OF WORK:
- [x] New construction
- [ ] Alteration (Repair/Recondition)
- [ ] Conversion
- [ ] Deepening
- [ ] Abandonment

(3) DRILLING METHOD:
- [ ] Rotary Air
- [ ] Rotary Mud
- [ ] Cable
- [ ] Hollow Stem Auger
- [x] Other PUSH PROBE

(4) BORE HOLE CONSTRUCTION:
Special Standards Yes [ ] No [x] Depth of completed well 25 ft.



Vault 0 ft. TO 1 ft.

Seal 1 ft. TO 4 ft.

Filter pack 4 ft. TO 25 ft.

Water-tight Cover

Surface flush vault

Locking cap

Casing diameter 1.5 in.

material PVC

Welded [ ] Threaded [x] Glued [ ]

Liner diameter ____ in.

material ____

Welded [ ] Threaded [x] Glued [ ]

Well Seal:

Material CHIPS

Amount 10 lbs.

Grout Weight ____

Borehole diameter 4 in.

Bentonite Plug at least 3 ft. thick

Screen material PVC

interval(s):

From 4 To 25

From ____ To ____

Slot size 0.10 in.

Filter Pack:

Material SAND 10/20

Size 1.5 in.

(5) WELL TEST:
- [ ] Pump
- [ ] Bailer
- [ ] Air
- [ ] Flowing Artesian

Permeability ____ Yield ____ GPM

Conductivity ____ pH ____

Temperature of Water 56 °F Depth artesian flow found ____ ft.

Was water analysis done? [x] Yes [ ] No

By whom? ____

Depth of strata to be analyzed. From ____ ft. to ____ ft.

Remarks ____

Name of supervising Geologist/Engineer ____

(6) LOCATION OF WELL By legal description
Well Location: County MARION

Township 7S S Range 2W W Section 19

SW ¼ of NW ¼ of above section.

Street address of well location 1705 LANCASTER DR NE SALEM, OR 97305

Tax lot number of well location 600

ATTACH MAP WITH LOCATION IDENTIFIED. Map shall include approximate scale and north arrow.

(7) STATIC WATER LEVEL:
13 Ft. below land surface Date 7/13/07

Artesian Pressure ____ lb/sq in. Date ____

(8) WATER BEARING ZONES:
Depth at which water was first found ____

From	To	Est. Flow Rate	SWL

(9) WELL LOG:
Ground elevation ____

Material	From	To	SWL
GRAVEL	0	1	
SILT SAND	1	25	

RECEIVED

AUG 16 2007

WATER RESOURCES DEPT SALEM, OREGON

Date started 7/13/07 Completed 7/13/07

(unbonded) Monitor Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.

Signed [signature] MWC Number 10423 Date 7/13/07

(bonded) Monitor Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed [signature] MWC Number 1522 Date JUL 19 2007

October 2003 ENF

MARI 60756

Cascade Project No.: P01213

Oregon Water Resources Department (OWRD) requires completion of a Geotechnical Hole Report if any of the following apply:

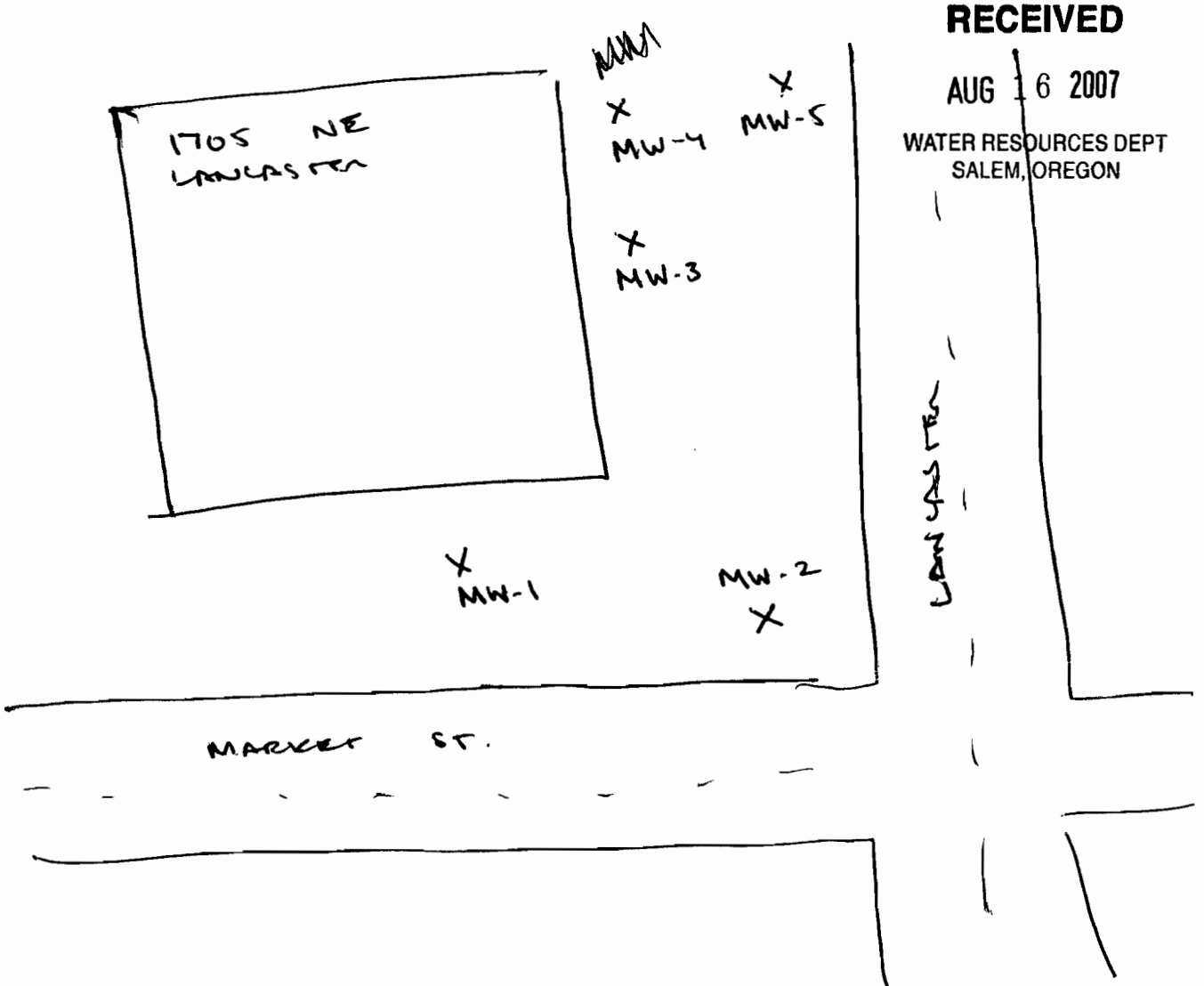
- Geotechnical hole is greater than 18 feet deep;
- Within 50 feet of a water supply or monitoring well;
- Used to make a determination of water quality;
- Constructed in an area of known or reasonably suspected contamination.

In order to comply with OWRD requirements, please provide a Site Map:

Map shall include an approximate scale of north arrow. Upon completion of well activities, a site map with each well location identified must be filed with each Geotechnical Hole Report (OR 690-240-035).

Thank You for your information and assistance on compliance with Oregon Administrative Rules.

SITE MAP



Site Address: 1705 Lancaster Dr. NE Salem
Client: BNV Comp NW
Cascade Drilling Project No.: P01213

MAR 60753

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-095)
Instructions for completing this report are on the last page of this form.

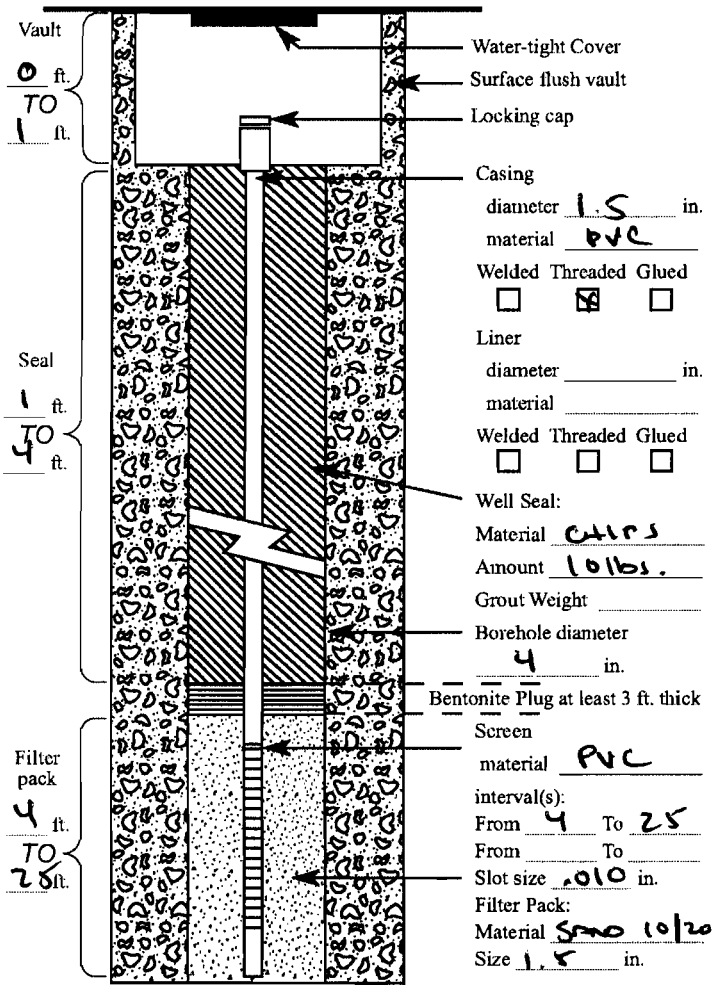
Well I.D. #: L 89791
Start Card #: 194010

(1) OWNER/PROJECT:
WELL NO. MW-2
Name POWELL DISTRIBUTING
Address 9125 NORTH BURRAGE
City PORTLAND State OREGON Zip 97217

(2) TYPE OF WORK:
☒ New construction ☐ Alteration (Repair/Recondition)
☐ Conversion ☐ Deepening ☐ Abandonment

(3) DRILLING METHOD:
☐ Rotary Air ☐ Rotary Mud ☐ Cable
☐ Hollow Stem Auger ☒ Other PUSH PROBE

(4) BORE HOLE CONSTRUCTION:
Special Standards ☐ Yes ☒ No Depth of completed well 25 ft.



(5) WELL TEST:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian
Permeability ____ Yield ____ GPM
Conductivity ____ pH ____
Temperature of Water 56 °F Depth artesian flow found ____ ft.
Was water analysis done? ☒ Yes ☐ No
By whom? ____
Depth of strata to be analyzed. From ____ ft. to ____ ft.
Remarks ____

Name of supervising Geologist/Engineer ____

(6) LOCATION OF WELL By legal description
Well Location: County MARION
Township 7S S Range 2W W Section 19
SW ¼ of NW ¼ of above section.
Street address of well location 1705 LANCASTER DR NE SALEM, OR 97305
Tax lot number of well location 600
ATTACH MAP WITH LOCATION IDENTIFIED. Map shall include approximate scale and north arrow.

(7) STATIC WATER LEVEL:
125 Ft. below land surface Date 7/12/07
Artesian Pressure ____ lb/sq in. Date ____

(8) WATER BEARING ZONES:
Depth at which water was first found ____

From	To	Est. Flow Rate	SWL

(9) WELL LOG:
Ground elevation ____

Material	From	To	SWL
CONCRETE	0	1	
SILTY SAND	1	25	

RECEIVED
AUG 16 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 7/12/07 Completed 7/12/07

(unbonded) Monitor Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.
Signed ____ MWC Number 10423 Date 7/12/07

(bonded) Monitor Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
Signed ____ MWC Number 1522 Date ____

JUL 19 2007

October 2003 ENF

MARI 60753

Cascade Project No.: P01213

Oregon Water Resources Department (OWRD) requires completion of a Geotechnical Hole Report if any of the following apply:

- Geotechnical hole is greater than 18 feet deep;
- Within 50 feet of a water supply or monitoring well;
- Used to make a determination of water quality;
- Constructed in an area of known or reasonably suspected contamination.

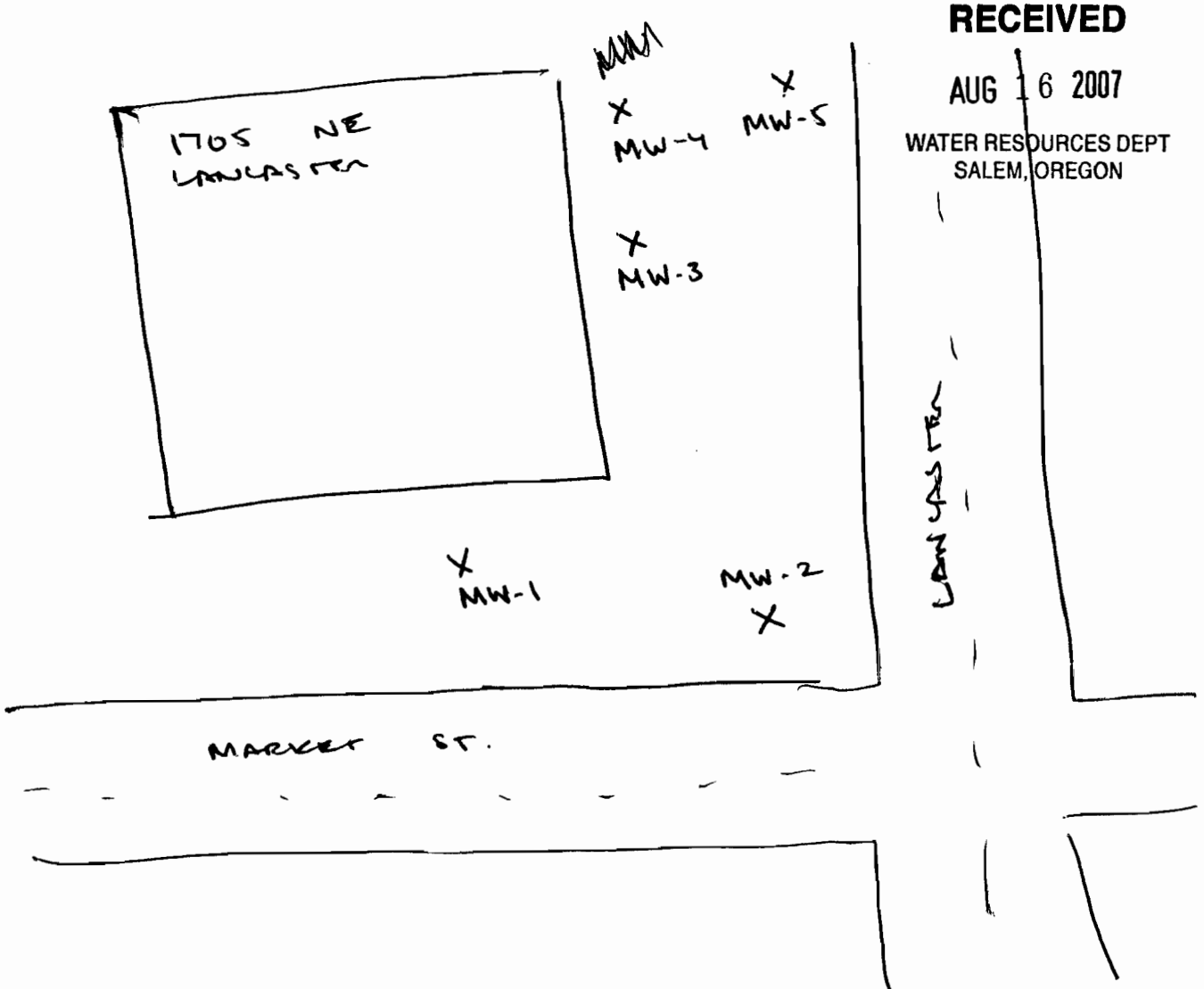
In order to comply with OWRD requirements, please provide a Site Map:

Map shall include an approximate scale of north arrow. Upon completion of well activities, a site map with each well location identified must be filed with each Geotechnical Hole Report (OR 690-240-035).

Thank You for your information and assistance on compliance with Oregon Administrative Rules.

SITE MAP

RECEIVED
AUG 16 2007
WATER RESOURCES DEPT
SALEM, OREGON



Site Address: 1705 Lancaster Dr. NE Salem
Client: BNV LCMP NW
Cascade Drilling Project No.: P01213

MAR 0702523

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-095)
Instructions for completing this report are on the last page of this form.

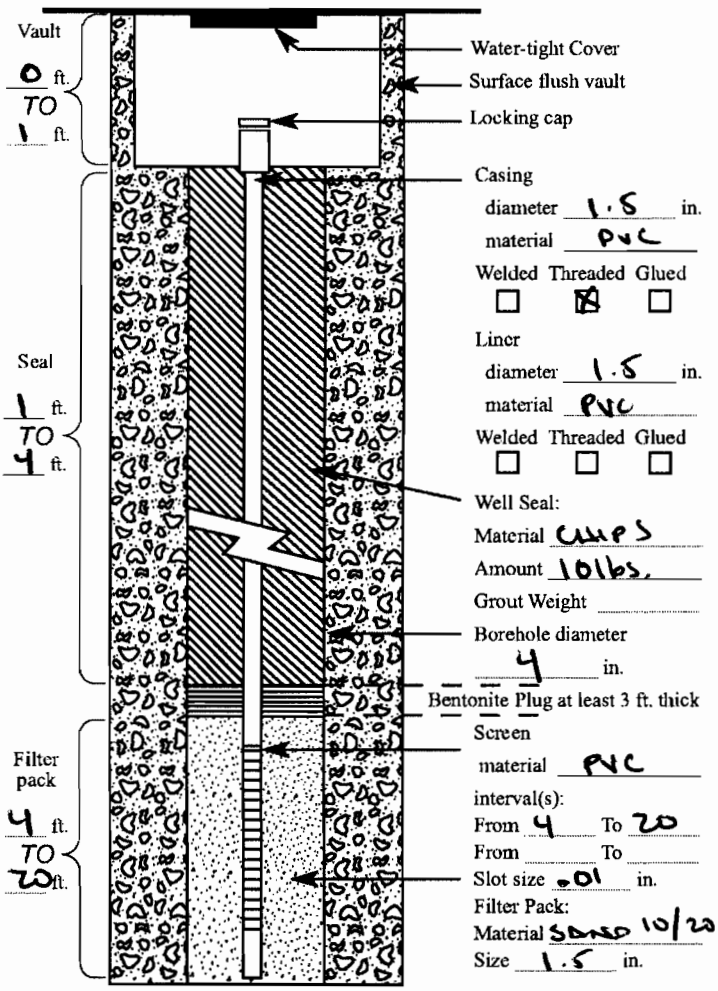
Well I.D. #: L 89790
Start Card #: 194009

(1) OWNER/PROJECT:
WELL NO. MW-1
Name POWELL DISTRIBUTING
Address 9125 NORTH BURRAGE
City PORTLAND State OREGON Zip 97217

(2) TYPE OF WORK:
☒ New construction ☐ Alteration (Repair/Recondition)
☐ Conversion ☐ Deepening ☐ Abandonment

(3) DRILLING METHOD:
☐ Rotary Air ☐ Rotary Mud ☐ Cable
☐ Hollow Stem Auger ☒ Other PUSH PROBE

(4) BORE HOLE CONSTRUCTION:
Special Standards ☐ Yes ☒ No Depth of completed well 20' ft.



(5) WELL TEST:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian
Permeability _____ Yield _____ GPM
Conductivity _____ pH _____
Temperature of Water 56 °F Depth artesian flow found _____ ft.
Was water analysis done? ☒ Yes ☐ No
By whom? _____
Depth of strata to be analyzed. From _____ ft. to _____ ft.
Remarks _____
Name of supervising Geologist/Engineer _____

(6) LOCATION OF WELL By legal description
Well Location: County MARION
Township 7S S Range 2W W Section 19
SW ¼ of NW ¼ of above section.
Street address of well location 1705 LANCASTER DR NE SALEM, OR 97305
Tax lot number of well location 600
ATTACH MAP WITH LOCATION IDENTIFIED. Map shall include approximate scale and north arrow.

(7) STATIC WATER LEVEL:
12.5' Ft. below land surface Date 7/12/07
Artesian Pressure _____ lb/sq in. Date _____

(8) WATER BEARING ZONES:
Depth at which water was first found 12.5'

From	To	Est. Flow Rate	SWL

(9) WELL LOG:
Ground elevation _____

Material	From	To	SWL
CONCRETE	0	1	
SILTY SAND	1	20	

RECEIVED
AUG 16 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 7/12/07 Completed 7/12/07

(unbonded) Monitor Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.
Signed _____ MWC Number 10423 Date 7/12/07

(bonded) Monitor Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
Signed _____ MWC Number 1522 Date _____

JUL 19 2007

October 2003 ENF

Cascade Project No.: P07213

Oregon Water Resources Department (OWRD) requires completion of a Geotechnical Hole Report if any of the following apply:

- Geotechnical hole is greater than 18 feet deep;
- Within 50 feet of a water supply or monitoring well;
- Used to make a determination of water quality;
- Constructed in an area of known or reasonably suspected contamination.

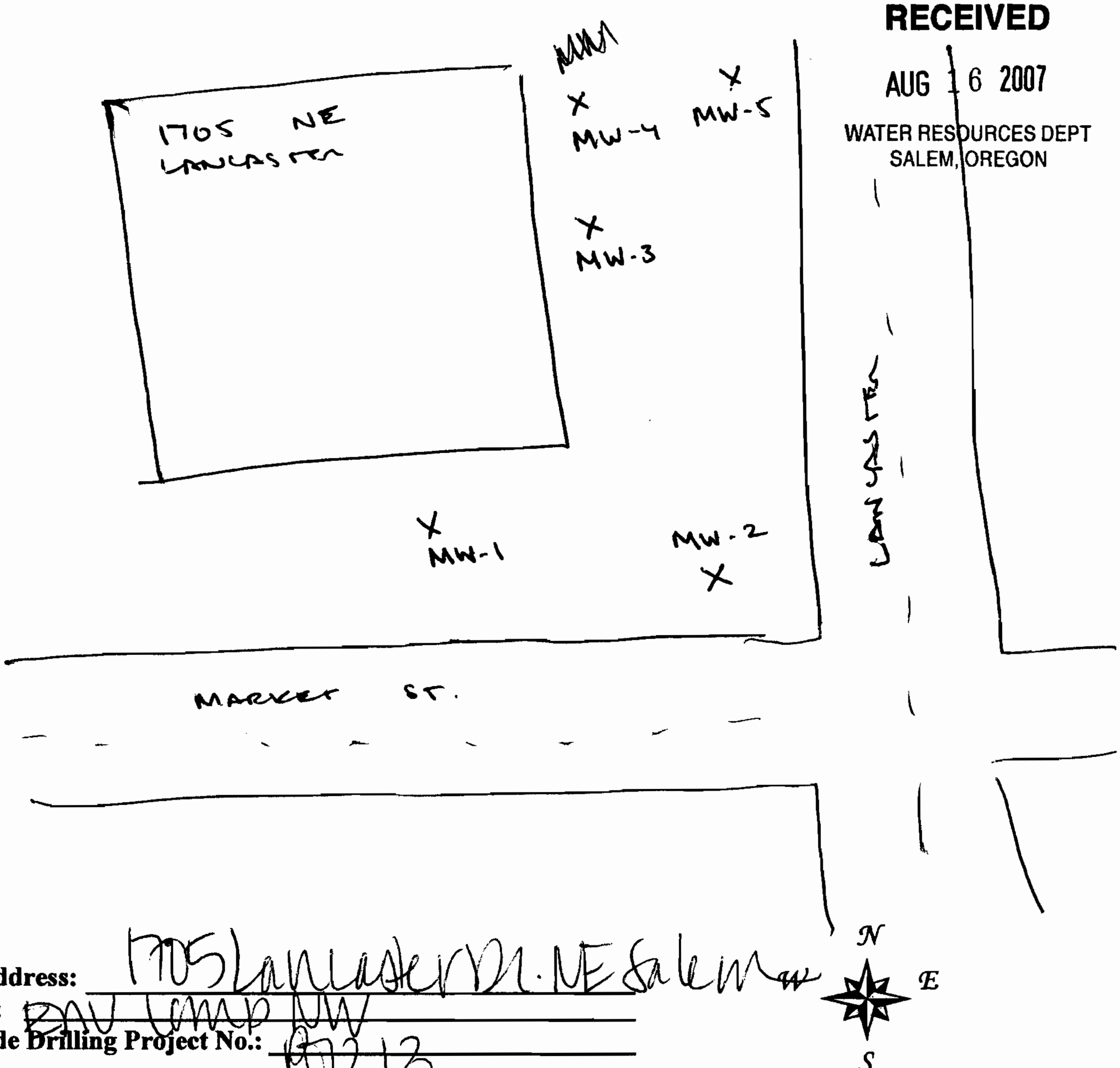
In order to comply with OWRD requirements, please provide a Site Map:

Map shall include an approximate scale of north arrow. Upon completion of well activities, a site map with each well location identified must be filed with each Geotechnical Hole Report (OR 690-240-035).

Thank You for your information and assistance on compliance with Oregon Administrative Rules.

SITE MAP

RECEIVED
AUG 16 2007
WATER RESOURCES DEPT
SALEM, OREGON



Site Address: 1705 Lancaster Dr. NE Salem
Client: BAU Corp NW
Cascade Drilling Project No.: P07213

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
(503) 607-1331
Fax (503) 607-1336

October 06, 2010

John Day
Environmental Compliance Northwest, Inc.
P.O. Box 230163
Portland, OR 97281

TEL: (503) 372-9760
FAX: (503) 213-9980

RE: Powell-Salem / 07-303

Dear John Day:

Order No.: 1009199

Specialty Analytical received 5 samples on 9/29/2010 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

For Cindy Hillyard
Project Manager

Technical Review

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-1
Lab Order:	1009199	**Collection Date:**	9/29/2010 12:00:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-01	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.355	0.0762		mg/L	1	10/1/2010
Lube Oil	ND	0.190		mg/L	1	10/1/2010
Surr: o-Terphenyl	89.3	50-150		%REC	1	10/1/2010
BTEX - RBC		**SW8021B**				Analyst: **jrp**
Benzene	ND	0.300		µg/L	1	10/3/2010
Toluene	ND	0.500		µg/L	1	10/3/2010
Ethylbenzene	ND	0.500		µg/L	1	10/3/2010
Xylenes, Total	ND	1.50		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	102	74.8-126		%REC	1	10/3/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	90.5	50-150		%REC	1	10/3/2010

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-2
Lab Order:	1009199	**Collection Date:**	9/29/2010 1:30:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-02	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	2.99	0.0762	L	mg/L	1	10/1/2010
Lube Oil	0.339	0.190		mg/L	1	10/1/2010
Surr: o-Terphenyl	124	50-150		%REC	1	10/1/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	1700	100		µg/L	1	10/5/2010
Surr: 4-Bromofluorobenzene	108	50-150		%REC	1	10/5/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **cz**
Cadmium	ND	0.10		ug/L	1	10/1/2010 8:50:00 PM
Chromium	ND	1.0		ug/L	1	10/1/2010 8:50:00 PM
Lead	0.12	0.10		ug/L	1	10/1/2010 8:50:00 PM
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	1.88	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Acenaphthylene	0.383	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Anthracene	0.192	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Benz(a)anthracene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Benzo(a)pyrene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Benzo(b)fluoranthene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Benzo(g,h,i)perylene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Benzo(k)fluoranthene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Chrysene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Dibenz(a,h)anthracene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Fluoranthene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Fluorene	4.08	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Naphthalene	0.795	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Phenanthrene	2.89	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Pyrene	0.0862	0.0479		µg/L	1	10/5/2010 5:38:00 PM
Surr: 2-Fluorobiphenyl	57.2	18.6-106		%REC	1	10/5/2010 5:38:00 PM
Surr: Nitrobenzene-d5	62.9	17-130		%REC	1	10/5/2010 5:38:00 PM
Surr: p-Terphenyl-d14	66.5	39.6-131		%REC	1	10/5/2010 5:38:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/1/2010 1:28:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	10/1/2010 1:28:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	10/1/2010 1:28:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/1/2010 1:28:00 PM
Benzene	213	0.600		µg/L	2	10/1/2010 12:52:00 PM
Ethylbenzene	7.51	1.00		µg/L	1	10/1/2010 1:28:00 PM
Isopropylbenzene	47.2	1.00		µg/L	1	10/1/2010 1:28:00 PM
m,p-Xylene	ND	2.00		µg/L	1	10/1/2010 1:28:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-2
Lab Order:	1009199	**Collection Date:**	9/29/2010 1:30:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-02	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
Methyl tert-butyl ether	ND	1.00		µg/L	1	10/1/2010 1:28:00 PM
n-Propylbenzene	137	1.00		µg/L	1	10/1/2010 1:28:00 PM
Naphthalene	3.64	1.00		µg/L	1	10/1/2010 1:28:00 PM
o-Xylene	2.30	1.00		µg/L	1	10/1/2010 1:28:00 PM
Toluene	1.49	1.00		µg/L	1	10/1/2010 1:28:00 PM
Surr: 1,2-Dichloroethane-d4	93.8	72.2-129		%REC	1	10/1/2010 1:28:00 PM
Surr: 4-Bromofluorobenzene	93.6	73.5-125		%REC	1	10/1/2010 1:28:00 PM
Surr: Dibromofluoromethane	90.7	58.8-148		%REC	1	10/1/2010 1:28:00 PM
Surr: Toluene-d8	96.8	79.8-137		%REC	1	10/1/2010 1:28:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	1009199	**Collection Date:**	9/29/2010 12:30:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-03	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	2.31	0.0777		mg/L	1	10/1/2010
Lube Oil	ND	0.194		mg/L	1	10/1/2010
Surr: o-Terphenyl	73.0	50-150		%REC	1	10/1/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	10/5/2010
Surr: 4-Bromofluorobenzene	116	50-150		%REC	1	10/5/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **cz**
Lead	ND	0.10		ug/L	1	10/1/2010 8:23:00 PM
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Acenaphthylene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Anthracene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Benz(a)anthracene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Benzo(a)pyrene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Benzo(b)fluoranthene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Benzo(g,h,i)perylene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Benzo(k)fluoranthene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Chrysene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Dibenz(a,h)anthracene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Fluoranthene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Fluorene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Naphthalene	0.0858	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Phenanthrene	0.0763	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Pyrene	ND	0.0477		µg/L	1	10/5/2010 1:16:00 PM
Surr: 2-Fluorobiphenyl	58.7	18.6-106		%REC	1	10/5/2010 1:16:00 PM
Surr: Nitrobenzene-d5	58.4	17-130		%REC	1	10/5/2010 1:16:00 PM
Surr: p-Terphenyl-d14	75.8	39.6-131		%REC	1	10/5/2010 1:16:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
Benzene	ND	0.300		µg/L	1	10/1/2010 12:12:00 PM
Ethylbenzene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
m,p-Xylene	ND	2.00		µg/L	1	10/1/2010 12:12:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	1009199	**Collection Date:**	9/29/2010 12:30:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-03	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
Naphthalene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
o-Xylene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
Toluene	ND	1.00		µg/L	1	10/1/2010 12:12:00 PM
Surr: 1,2-Dichloroethane-d4	93.6	72.2-129		%REC	1	10/1/2010 12:12:00 PM
Surr: 4-Bromofluorobenzene	94.2	73.5-125		%REC	1	10/1/2010 12:12:00 PM
Surr: Dibromofluoromethane	99.8	58.8-148		%REC	1	10/1/2010 12:12:00 PM
Surr: Toluene-d8	102	79.8-137		%REC	1	10/1/2010 12:12:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-4
Lab Order:	1009199	**Collection Date:**	9/29/2010 2:00:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-04	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.133	0.0766		mg/L	1	10/1/2010
Lube Oil	ND	0.191		mg/L	1	10/1/2010
Surr: o-Terphenyl	77.1	50-150		%REC	1	10/1/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	724	100		µg/L	1	10/4/2010
Surr: 4-Bromofluorobenzene	112	50-150		%REC	1	10/4/2010
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/30/2010 6:12:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	9/30/2010 6:12:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	9/30/2010 6:12:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/30/2010 6:12:00 PM
Benzene	71.5	0.300		µg/L	1	9/30/2010 6:12:00 PM
Ethylbenzene	37.1	1.00		µg/L	1	9/30/2010 6:12:00 PM
Isopropylbenzene	9.77	1.00		µg/L	1	9/30/2010 6:12:00 PM
m,p-Xylene	ND	2.00		µg/L	1	9/30/2010 6:12:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	9/30/2010 6:12:00 PM
n-Propylbenzene	14.6	1.00		µg/L	1	9/30/2010 6:12:00 PM
Naphthalene	15.2	1.00		µg/L	1	9/30/2010 6:12:00 PM
o-Xylene	1.57	1.00		µg/L	1	9/30/2010 6:12:00 PM
Toluene	1.28	1.00		µg/L	1	9/30/2010 6:12:00 PM
Surr: 1,2-Dichloroethane-d4	91.1	72.2-129		%REC	1	9/30/2010 6:12:00 PM
Surr: 4-Bromofluorobenzene	90.3	73.5-125		%REC	1	9/30/2010 6:12:00 PM
Surr: Dibromofluoromethane	81.7	58.8-148		%REC	1	9/30/2010 6:12:00 PM
Surr: Toluene-d8	101	79.8-137		%REC	1	9/30/2010 6:12:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-5
Lab Order:	1009199	**Collection Date:**	9/29/2010 11:30:00 AM
Project:	Powell-Salem / 07-303		
Lab ID:	1009199-05	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	ND	0.0764		mg/L	1	10/1/2010
Lube Oil	ND	0.191		mg/L	1	10/1/2010
Surr: o-Terphenyl	73.0	50-150		%REC	1	10/1/2010
BTEX - RBC		**SW8021B**				Analyst: **jrp**
Benzene	ND	0.300		µg/L	1	10/3/2010
Toluene	ND	0.500		µg/L	1	10/3/2010
Ethylbenzene	ND	0.500		µg/L	1	10/3/2010
Xylenes, Total	ND	1.50		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	103	74.8-126		%REC	1	10/3/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	90.1	50-150		%REC	1	10/3/2010

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **1009199-03CMS**	SampType: **MS**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **10/1/2010**	Run ID: **ICPMS_101001A**
Client ID: **MW-3**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701033**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	52.26	0.10	50	0.05965	104	70	130	0	0		

Sample ID: **1009199-03CMSD**	SampType: **MSD**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **10/1/2010**	Run ID: **ICPMS_101001A**
Client ID: **MW-3**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	55.25	0.10	50	0.05965	110	70	130	52.26	5.56	20	

Sample ID: **1009199-03CDUP**	SampType: **DUP**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **10/1/2010**	Run ID: **ICPMS_101001A**
Client ID: **MW-3**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701032**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.05355	0.10	0	0	0	0	0	0.05965	0	20	J

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_101001A**
Client ID: **ZZZZZ**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701020**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.37	0.10	50	0	101	90	110	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_101001A**
Client ID: **ZZZZZ**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701030**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.46	0.10	50	0	101	90	110	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_101001A**
Client ID: **ZZZZZ**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701039**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	51.22	0.10	50	0	102	90	110	0	0		

Sample ID: **ICB-26696**	SampType: **ICB**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **10/1/2010**	Run ID: **ICPMS_101001A**
Client ID: **ZZZZZ**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701021**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.10	0	0	0	0	0	0	0		

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_101001A**
Client ID: **ZZZZZ**	Batch ID: **26696**	TestNo: **SW6020**		Analysis Date: **10/1/2010**	SeqNo: **701019**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.76	0.10	50	0	99.5	90	110	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-26676**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/29/2010**	SeqNo: **701472**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	0.11	1.00									J
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
n-Propylbenzene	ND	1.00									
Naphthalene	ND	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	93.56	0	100	0	93.6	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	93.12	0	100	0	93.1	73.5	125	0	0		
Surr: Dibromofluoromethane	95.85	0	100	0	95.8	58.8	148	0	0		
Surr: Toluene-d8	105.6	0	100	0	106	79.8	137	0	0		

Sample ID: **MB-26676**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/30/2010**	SeqNo: **701475**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									

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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-26676**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/30/2010**	SeqNo: **701475**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	1.00									
Naphthalene	ND	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	93.04	0	100	0	93	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	93.56	0	100	0	93.6	73.5	125	0	0		
Surr: Dibromofluoromethane	94.29	0	100	0	94.3	58.8	148	0	0		
Surr: Toluene-d8	103.7	0	100	0	104	79.8	137	0	0		

Sample ID: **LCS-26676**	SampType: **LCS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/29/2010**	SeqNo: **701466**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.35	0.300	40	0	98.4	77.9	125	0	0		
Toluene	45.07	1.00	40	0	113	74.6	119	0	0		

Sample ID: **A1009173-02AMS**	SampType: **MS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/29/2010**	SeqNo: **701467**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.96	0.300	40	0	94.9	71.5	118	0	0		
Toluene	43.01	1.00	40	0.15	107	79.6	121	0	0		

Sample ID: **A1009173-02AMSD**	SampType: **MSD**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/29/2010**	SeqNo: **701471**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	35.14	0.300	40	0	87.8	71.5	118	37.96	7.72	20	
Toluene	41.88	1.00	40	0.15	104	79.6	121	43.01	2.66	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **CCV-26676**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/29/2010**	SeqNo: **701465**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	41.83	1.00	40	0	105	80	120	0	0		
Toluene	43.28	1.00	40	0	108	80	120	0	0		

Sample ID: **CCV-26676**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **9/29/2010**	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **9/30/2010**	SeqNo: **701474**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	39.63	1.00	40	0	99.1	80	120	0	0		
Toluene	42.06	1.00	40	0	105	80	120	0	0		

Sample ID: **CCV-26676**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	Run ID: **5973J_100929B**
Client ID: **ZZZZZ**	Batch ID: **26676**	TestNo: **SW8260B**		Analysis Date: **10/1/2010**	SeqNo: **701479**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	41.14	1.00	40	0	103	80	120	0	0		
Toluene	41.7	1.00	40	0	104	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_W

Sample ID: **MB-26701**	SampType: **MBLK**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700751**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.14	0.300									J
Toluene	0.19	0.500									J
Ethylbenzene	0.36	0.500									J
Xylenes, Total	0.83	1.50									J
Surr: 4-Bromofluorobenzene	102.2	0	100	0	102	74.8	126	0	0		

Sample ID: **LCS-26701**	SampType: **LCS**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700750**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	44.34	0.300	50	0	88.7	75.8	113	0	0		
Toluene	47.95	0.500	50	0	95.9	77	116	0	0		
Ethylbenzene	50.18	0.500	50	0	100	76.6	118	0	0		
Xylenes, Total	153.7	1.50	150	0	102	76.7	118	0	0		

Sample ID: **1009198-01BMS**	SampType: **MS**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.91	0.300	25	0.19	82.9	67.8	118	0	0		
Toluene	22.81	0.500	25	0.2	90.4	74.7	117	0	0		
Ethylbenzene	23.33	0.500	25	0.18	92.6	74.5	115	0	0		
Xylenes, Total	71.82	1.50	75	0.9	94.6	76.8	120	0	0		

Sample ID: **1009198-01BMSD**	SampType: **MSD**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.03	0.300	25	0.19	87.4	67.8	118	20.91	5.22	20	
Toluene	24.16	0.500	25	0.2	95.8	74.7	117	22.81	5.75	20	
Ethylbenzene	24.7	0.500	25	0.18	98.1	74.5	115	23.33	5.70	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_W

Sample ID: **1009198-01BMSD**	SampType: **MSD**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes, Total	76.02	1.50	75	0.9	100	76.8	120	71.82	5.68	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date:	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	44.34	0.300	50	0	88.7	85	115	0	0		
Toluene	47.95	0.500	50	0	95.9	85	115	0	0		
Ethylbenzene	50.18	0.500	50	0	100	85	115	0	0		
Xylenes, Total	153.7	1.50	150	0	102	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **MB-26697**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **10/1/2010**	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	0.06272	0.200									J
Surr: o-Terphenyl	0.1643	0	0.2	0	82.2	50	150	0	0		

Sample ID: **LCS-26697**	SampType: **LCS**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **10/1/2010**	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9603	0.0800	1	0	96	60.7	121	0	0		
Lube Oil	0.8711	0.200	1	0	87.1	64	126	0	0		

Sample ID: **LCSD-26697**	SampType: **LCSD**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **10/1/2010**	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9211	0.0800	1	0	92.1	60.7	121	0.9603	4.16	20	
Lube Oil	0.9175	0.200	1	0	91.7	64	126	0.8711	5.18	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8.741	0.0800	8.155	0	107	85	115	0	0		
Lube Oil	3.746	0.200	4.12	0	90.9	85	115	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700694**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6.581	0.0800	6.116	0	108	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700694**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	2.864	0.200	3.09	0	92.7	85	115	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/3/2010**	SeqNo: **700736**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	9.161	0.0800	8.155	0	112	85	115	0	0		
Lube Oil	3.887	0.200	4.12	0	94.3	85	115	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/3/2010**	SeqNo: **700748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	7.019	0.0800	6.116	0	115	85	115	0	0		
Lube Oil	3.065	0.200	3.09	0	99.2	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **MB-26704**	SampType: **MBLK**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003B**
Client ID: **ZZZZZ**	Batch ID: **26704**	TestNo: **NWTPH-Gx**		Analysis Date: **10/3/2010**	SeqNo: **700763**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	54.51	100									J
Surr: 4-Bromofluorobenzene	94.75	0	100	0	94.8	50	150	0	0		

Sample ID: **MB-26720**	SampType: **MBLK**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **10/4/2010**	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/4/2010**	SeqNo: **700979**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	64.59	100									J
Surr: 4-Bromofluorobenzene	118.1	0	100	0	118	50	150	0	0		

Sample ID: **LCS-26704**	SampType: **LCS**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003B**
Client ID: **ZZZZZ**	Batch ID: **26704**	TestNo: **NWTPH-Gx**		Analysis Date: **10/3/2010**	SeqNo: **700762**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2494	100	2500	0	99.8	74.4	128	0	0		

Sample ID: **LCS-26720**	SampType: **LCS**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **10/4/2010**	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/4/2010**	SeqNo: **700978**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2009	100	2000	0	100	74.4	128	0	0		

Sample ID: **1009198-01BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003B**
Client ID: **ZZZZZ**	Batch ID: **26704**	TestNo: **NWTPH-Gx**		Analysis Date: **10/3/2010**	SeqNo: **700765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	19.48	100	0	0	0	0	0	35.43	0	20	J

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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **1010008-01CDUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **10/4/2010**	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/4/2010**	SeqNo: **700982**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	42.77	100	0	0	0	0	0	36.13	0	20	J

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-I_101003B**
Client ID: **ZZZZZ**	Batch ID: **26704**	TestNo: **NWTPH-Gx**		Analysis Date: **10/3/2010**	SeqNo: **700772**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2756	100	3000	0	91.9	80	120	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/4/2010**	SeqNo: **700980**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2432	100	2500	0	97.3	80	120	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/4/2010**	SeqNo: **700989**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2849	100	3000	0	95	80	120	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/5/2010**	SeqNo: **701040**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1938	100	2000	0	96.9	80	120	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/5/2010**	SeqNo: **701046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHGX_** Units: **µg/L** Prep Date: Run ID: **GC-S_101004C**
Client ID: **ZZZZZ** Batch ID: **26720** TestNo: **NWTPH-Gx** Analysis Date: **10/5/2010** SeqNo: **701046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2321	100	2500	0	92.9	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **MB-26719**	SampType: **MBLK**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **10/4/2010**	Run ID: **5973G_101005A**
Client ID: **ZZZZZ**	Batch ID: **26719**	TestNo: **8270SIM**		Analysis Date: **10/5/2010**	SeqNo: **701100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.01	0.0500									J
Acenaphthylene	ND	0.0500									
Anthracene	ND	0.0500									
Benz(a)anthracene	0.01	0.0500									J
Benzo(a)pyrene	0.02	0.0500									J
Benzo(b)fluoranthene	0.01	0.0500									J
Benzo(g,h,i)perylene	0.03	0.0500									J
Benzo(k)fluoranthene	0.01	0.0500									J
Chrysene	0.01	0.0500									J
Dibenz(a,h)anthracene	0.02	0.0500									J
Fluoranthene	0.01	0.0500									J
Fluorene	ND	0.0500									
Indeno(1,2,3-cd)pyrene	0.03	0.0500									J
Naphthalene	0.03	0.0500									J
Phenanthrene	0.02	0.0500									J
Pyrene	0.01	0.0500									J
Surr: 2-Fluorobiphenyl	38.63	1.00	100	0	38.6	18.6	106	0	0		
Surr: Nitrobenzene-d5	66.85	1.00	100	0	66.8	17	130	0	0		
Surr: p-Terphenyl-d14	71.17	1.00	100	0	71.2	39.6	131	0	0		

Sample ID: **LCS-26719**	SampType: **LCS**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **10/4/2010**	Run ID: **5973G_101005A**
Client ID: **ZZZZZ**	Batch ID: **26719**	TestNo: **8270SIM**		Analysis Date: **10/5/2010**	SeqNo: **701098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.5	0.0500	5	0	70	35.1	100	0	0		
Benzo(g,h,i)perylene	3.09	0.0500	5	0	61.8	20.8	120	0	0		
Chrysene	3.21	0.0500	5	0	64.2	39.1	119	0	0		
Naphthalene	3.47	0.0500	5	0	69.4	25.6	106	0	0		
Phenanthrene	3.26	0.0500	5	0	65.2	38.1	106	0	0		
Pyrene	3.8	0.0500	5	0	76	41.3	118	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1009199
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **LCSD-26719**	SampType: **LCSD**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **10/4/2010**	Run ID: **5973G_101005A**
Client ID: **ZZZZZ**	Batch ID: **26719**	TestNo: **8270SIM**		Analysis Date: **10/5/2010**	SeqNo: **701099**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.23	0.0500	5	0	64.6	35.1	100	3.5	8.02	20	
Benzo(g,h,i)perylene	2.91	0.0500	5	0	58.2	20.8	120	3.09	6.00	20	
Chrysene	3.05	0.0500	5	0	61	39.1	119	3.21	5.11	20	
Naphthalene	2.93	0.0500	5	0	58.6	25.6	106	3.47	16.9	20	
Phenanthrene	3.05	0.0500	5	0	61	38.1	106	3.26	6.66	20	
Pyrene	3.61	0.0500	5	0	72.2	41.3	118	3.8	5.13	20	

Sample ID: **CCV-26719**	SampType: **CCV**	TestCode: **PAHLL_W**	Units: **µg/Kg**	Prep Date:	Run ID: **5973G_101005A**
Client ID: **ZZZZZ**	Batch ID: **26719**	TestNo: **8270SIM**		Analysis Date: **10/5/2010**	SeqNo: **701097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2.23	6.67	2	0	112	70	130	0	0		
Acenaphthylene	2.42	6.67	2	0	121	70	130	0	0		
Anthracene	2.07	6.67	2	0	104	70	130	0	0		
Benz(a)anthracene	1.89	6.67	2	0	94.5	70	130	0	0		
Benzo(a)pyrene	1.94	6.67	2	0	97	70	130	0	0		
Benzo(b)fluoranthene	1.96	6.67	2	0	98	70	130	0	0		
Benzo(g,h,i)perylene	1.8	6.67	2	0	90	70	130	0	0		
Benzo(k)fluoranthene	1.8	6.67	2	0	90	70	130	0	0		
Chrysene	1.83	6.67	2	0	91.5	70	130	0	0		
Dibenz(a,h)anthracene	1.93	6.67	2	0	96.5	70	130	0	0		
Fluoranthene	2.04	6.67	2	0	102	70	130	0	0		
Fluorene	2.22	6.67	2	0	111	70	130	0	0		
Indeno(1,2,3-cd)pyrene	1.89	6.67	2	0	94.5	70	130	0	0		
Naphthalene	2.28	6.67	2	0	114	70	130	0	0		
Phenanthrene	2.02	6.67	2	0	101	70	130	0	0		
Pyrene	2.33	6.67	2	0	116	70	130	0	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

KEY TO FLAGS

Rev. May 12, 2010

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
A4	The product appears to be aged or degraded diesel.
B	The blank exhibited a positive result great than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
G	Result may be biased high due to biogenic interferences. Clean up is recommended.
H	Sample was analyzed outside recommended holding time.
HT	At clients request, samples was analyzed outside of recommended holding time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits; post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

CHAIN OF CUSTODY RECORD

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: John Day
Company: ECN
Address: PO Box 230163
PTLD, OR 97281
Phone: 3729760 Fax: 2179580
Project No. 07-383 Project Name: Powell - Salem
Project Site Location OR: x WA: ____ Other: ____
Invoice To: ____ P.O. No. ____

Collected By:
Signature: [signature]
Printed: John Day

Signature: ____
Printed: ____

Turn Around Time
☒ Normal 5-7 Business Days
☐ Rush ____
Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1009199
Shipped Via: Client
Air Bill No. —
Temperature On Receipt: 4 °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	BTEX/TPH-Gx	8260 (VOCs)	TPH-Gx	TPH-Dx	PAHs	Pb (Dissolved)	Cd/Pb (Dissolved)				Comments	Lab I.D.
9/29/10	1200	MW-1	W	5	X			X	⊗							
↓	1330	MW-2	↓	6		X	X	X	X		X				Run PAHs	
	1230	MW-3		6		X	X	X	X	X					if > 0.5 ppm	
	1400	MW-4		5		X	X	X	~~⊗~~ not needed						TPH-Dx	
	1130	MW-5		5	X			X							⊗ Jour 10/4/10	

Relinquished By: [signature]	Date	Time	Received By:	Relinquished By:	Date	Time
Company: ECN	9/29/10	1705	Company:	Company:		
Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt. Samples held beyond 60 days subject to storage fee(s)				Received For Lab By: Nikki Bippes	9/29/10	1705

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
(503) 607-1331
Fax (503) 607-1336

July 09, 2010

John Day
Environmental Compliance Northwest, Inc.
P.O. Box 230163
Portland, OR 97281

TEL: (503) 372-9760
FAX: (503) 213-9980

RE: Powell-Salem / 07303

Dear John Day:

Order No.: 1007029

Specialty Analytical received 4 samples on 7/2/2010 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Cindy Hillyard
Project Manager

Technical Review

Specialty Analytical

Date: *09-Jul-10*

CLIENT: Environmental Compliance Northwest, Inc.
Project: Powell-Salem / 07303

Lab Order: 1007029

Lab ID: 1007029-01
Collection Date: 6/30/2010 8:30:00 AM
Client Sample ID: MW-1
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.380	0.0832	A1	mg/L	1	7/7/2010
Lube Oil	0.350	0.208	A2	mg/L	1	7/7/2010
Surr: o-Terphenyl	89.1	50-150		%REC	1	7/7/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	7/9/2010
Surr: 4-Bromofluorobenzene	115	50-150		%REC	1	7/9/2010
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
Benzene	ND	0.300		µg/L	1	7/7/2010 3:40:00 PM
Ethylbenzene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
m,p-Xylene	ND	2.00		µg/L	1	7/7/2010 3:40:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
Naphthalene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
o-Xylene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
Toluene	ND	1.00		µg/L	1	7/7/2010 3:40:00 PM
Surr: 1,2-Dichloroethane-d4	95.4	72.2-129		%REC	1	7/7/2010 3:40:00 PM
Surr: 4-Bromofluorobenzene	85.8	73.5-125		%REC	1	7/7/2010 3:40:00 PM
Surr: Dibromofluoromethane	108	58.8-148		%REC	1	7/7/2010 3:40:00 PM
Surr: Toluene-d8	91.7	79.8-137		%REC	1	7/7/2010 3:40:00 PM

Specialty Analytical

Date: *09-Jul-10*

CLIENT: Environmental Compliance Northwest, Inc.
Project: Powell-Salem / 07303

Lab Order: 1007029

Lab ID: 1007029-02
Collection Date: 6/30/2010 10:30:00 AM
Client Sample ID: MW-2
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	3.75	0.0760	A1	mg/L	1	7/7/2010
Lube Oil	0.723	0.190	A2	mg/L	1	7/7/2010
Surr: o-Terphenyl	106	50-150		%REC	1	7/7/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	2700	100		µg/L	1	7/9/2010
Surr: 4-Bromofluorobenzene	123	50-150		%REC	1	7/9/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **zau**
Cadmium	ND	0.10		ug/L	1	7/6/2010 6:29:00 PM
Chromium	ND	1.0		ug/L	1	7/6/2010 6:29:00 PM
Lead	ND	0.10		ug/L	1	7/6/2010 6:29:00 PM
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	1.95	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Acenaphthylene	0.369	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Anthracene	0.123	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Benz(a)anthracene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Benzo(a)pyrene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Benzo(b)fluoranthene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Benzo(g,h,i)perylene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Benzo(k)fluoranthene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Chrysene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Dibenz(a,h)anthracene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Fluoranthene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Fluorene	3.64	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Naphthalene	1.16	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Phenanthrene	3.24	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Pyrene	0.0851	0.0473		µg/L	1	7/7/2010 9:26:00 AM
Surr: 2-Fluorobiphenyl	67.2	18.6-106		%REC	1	7/7/2010 9:26:00 AM
Surr: Nitrobenzene-d5	72.0	17-130		%REC	1	7/7/2010 9:26:00 AM
Surr: p-Terphenyl-d14	104	39.6-131		%REC	1	7/7/2010 9:26:00 AM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 4:15:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/7/2010 4:15:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/7/2010 4:15:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 4:15:00 PM
Benzene	239	1.50		µg/L	5	7/7/2010 6:34:00 PM
Ethylbenzene	6.70	1.00		µg/L	1	7/7/2010 4:15:00 PM

CLIENT: Environmental Compliance Northwest, Inc. **Lab Order:** 1007029
Project: Powell-Salem / 07303

VOLATILE ORGANICS BY GC/MS		SW8260B			Analyst: **kmn**
Isopropylbenzene	36.2	1.00	µg/L	1	7/7/2010 4:15:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/7/2010 4:15:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/7/2010 4:15:00 PM
n-Propylbenzene	107	1.00	µg/L	1	7/7/2010 4:15:00 PM
Naphthalene	2.79	1.00	µg/L	1	7/7/2010 4:15:00 PM
o-Xylene	ND	1.00	µg/L	1	7/7/2010 4:15:00 PM
Toluene	1.19	1.00	µg/L	1	7/7/2010 4:15:00 PM
Surr: 1,2-Dichloroethane-d4	103	72.2-129	%REC	1	7/7/2010 4:15:00 PM
Surr: 4-Bromofluorobenzene	81.1	73.5-125	%REC	1	7/7/2010 4:15:00 PM
Surr: Dibromofluoromethane	106	58.8-148	%REC	1	7/7/2010 4:15:00 PM
Surr: Toluene-d8	82.7	79.8-137	%REC	1	7/7/2010 4:15:00 PM

Specialty Analytical

Date: *09-Jul-10*

CLIENT: Environmental Compliance Northwest, Inc.
Project: Powell-Salem / 07303

Lab Order: 1007029

Lab ID: 1007029-03
Collection Date: 6/30/2010 9:30:00 AM
Client Sample ID: MW-3
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.562	0.0823	A1	mg/L	1	7/7/2010
Lube Oil	0.412	0.206	A2	mg/L	1	7/7/2010
Surr: o-Terphenyl	92.4	50-150		%REC	1	7/7/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	109	100		µg/L	1	7/9/2010
Surr: 4-Bromofluorobenzene	113	50-150		%REC	1	7/9/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **zau**
Lead	ND	0.10		ug/L	1	7/6/2010 5:48:00 PM
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Acenaphthylene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Anthracene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Benz(a)anthracene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Benzo(a)pyrene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Benzo(b)fluoranthene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Benzo(g,h,i)perylene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Benzo(k)fluoranthene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Chrysene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Dibenz(a,h)anthracene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Fluoranthene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Fluorene	0.0920	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Naphthalene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Phenanthrene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Pyrene	ND	0.0511		µg/L	1	7/6/2010 5:50:00 PM
Surr: 2-Fluorobiphenyl	58.1	18.6-106		%REC	1	7/6/2010 5:50:00 PM
Surr: Nitrobenzene-d5	59.7	17-130		%REC	1	7/6/2010 5:50:00 PM
Surr: p-Terphenyl-d14	83.8	39.6-131		%REC	1	7/6/2010 5:50:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
Benzene	0.990	0.300		µg/L	1	7/8/2010 10:54:00 AM
Ethylbenzene	2.56	1.00		µg/L	1	7/7/2010 4:50:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
m,p-Xylene	ND	2.00		µg/L	1	7/7/2010 4:50:00 PM

Specialty Analytical

Date: *09-Jul-10*

CLIENT: Environmental Compliance Northwest, Inc. **Lab Order:** 1007029
Project: Powell-Salem / 07303

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
Methyl tert-butyl ether	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
n-Propylbenzene	1.05	1.00		µg/L	1	7/7/2010 4:50:00 PM
Naphthalene	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
o-Xylene	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
Toluene	ND	1.00		µg/L	1	7/7/2010 4:50:00 PM
Surr: 1,2-Dichloroethane-d4	86.2	72.2-129		%REC	1	7/7/2010 4:50:00 PM
Surr: 4-Bromofluorobenzene	78.7	73.5-125		%REC	1	7/7/2010 4:50:00 PM
Surr: Dibromofluoromethane	94.0	58.8-148		%REC	1	7/7/2010 4:50:00 PM
Surr: Toluene-d8	78.1	79.8-137	S	%REC	1	7/7/2010 4:50:00 PM

Lab ID: 1007029-04 **Collection Date:** 6/30/2010 7:30:00 AM
Client Sample ID: MW-4 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	ND	0.0815		mg/L	1	7/7/2010
Lube Oil	0.209	0.204		mg/L	1	7/7/2010
Surr: o-Terphenyl	103	50-150		%REC	1	7/7/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	7/9/2010
Surr: 4-Bromofluorobenzene	111	50-150		%REC	1	7/9/2010
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
Benzene	ND	0.300		µg/L	1	7/7/2010 5:25:00 PM
Ethylbenzene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
m,p-Xylene	ND	2.00		µg/L	1	7/7/2010 5:25:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
Naphthalene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
o-Xylene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
Toluene	ND	1.00		µg/L	1	7/7/2010 5:25:00 PM
Surr: 1,2-Dichloroethane-d4	98.2	72.2-129		%REC	1	7/7/2010 5:25:00 PM
Surr: 4-Bromofluorobenzene	82.6	73.5-125		%REC	1	7/7/2010 5:25:00 PM
Surr: Dibromofluoromethane	104	58.8-148		%REC	1	7/7/2010 5:25:00 PM
Surr: Toluene-d8	84.7	79.8-137		%REC	1	7/7/2010 5:25:00 PM

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **1007029-03CMS**	SampType: **MS**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **7/6/2010**	Run ID: **ICPMS_100706A**
Client ID: **MW-3**	Batch ID: **25986**	TestNo: **SW6020**		Analysis Date: **7/6/2010**	SeqNo: **684921**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	46.07	0.10	50	0	92.1	70	130	0	0		
Chromium	43.22	1.0	50	0	86.4	70	130	0	0		
Lead	46.1	0.10	50	0	92.2	70	130	0	0		

Sample ID: **1007029-03CMSD**	SampType: **MSD**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **7/6/2010**	Run ID: **ICPMS_100706A**
Client ID: **MW-3**	Batch ID: **25986**	TestNo: **SW6020**		Analysis Date: **7/6/2010**	SeqNo: **684922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	47.27	0.10	50	0	94.5	70	130	46.07	2.57	20	
Chromium	44.76	1.0	50	0	89.5	70	130	43.22	3.50	20	
Lead	47	0.10	50	0	94	70	130	46.1	1.93	20	

Sample ID: **1007029-03CDUP**	SampType: **DUP**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **7/6/2010**	Run ID: **ICPMS_100706A**
Client ID: **MW-3**	Batch ID: **25986**	TestNo: **SW6020**		Analysis Date: **7/6/2010**	SeqNo: **684920**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.10	0	0	0	0	0	0	0	20	
Chromium	ND	1.0	0	0	0	0	0	0	0	20	
Lead	ND	0.10	0	0	0	0	0	0	0	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_100706A**
Client ID: **ZZZZZ**	Batch ID: **25986**	TestNo: **SW6020**		Analysis Date: **7/6/2010**	SeqNo: **684917**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	53.13	0.10	50	0	106	90	110	0	0		
Chromium	50.47	1.0	50	0	101	90	110	0	0		
Lead	53.14	0.10	50	0	106	90	110	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100706A**
Client ID: **ZZZZZ** Batch ID: **25986** TestNo: **SW6020** Analysis Date: **7/6/2010** SeqNo: **684923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	52.68	0.10	50	0	105	90	110	0	0		
Chromium	50.28	1.0	50	0	101	90	110	0	0		
Lead	52.46	0.10	50	0	105	90	110	0	0		

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100706A**
Client ID: **ZZZZZ** Batch ID: **25986** TestNo: **SW6020** Analysis Date: **7/6/2010** SeqNo: **684925**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	52.52	0.10	50	0	105	90	110	0	0		
Chromium	49.52	1.0	50	0	99	90	110	0	0		
Lead	52	0.10	50	0	104	90	110	0	0		

Sample ID: **ICB-25986** SampType: **ICB** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: **7/6/2010** Run ID: **ICPMS_100706A**
Client ID: **ZZZZZ** Batch ID: **25986** TestNo: **SW6020** Analysis Date: **7/6/2010** SeqNo: **684918**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.10	0	0	0	0	0	0	0		
Chromium	ND	1.0	0	0	0	0	0	0	0		
Lead	ND	0.10	0	0	0	0	0	0	0		

Sample ID: **ICV** SampType: **ICV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100706A**
Client ID: **ZZZZZ** Batch ID: **25986** TestNo: **SW6020** Analysis Date: **7/6/2010** SeqNo: **684916**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	52.84	0.10	50	0	106	90	110	0	0		
Chromium	50.97	1.0	50	0	102	90	110	0	0		
Lead	52.79	0.10	50	0	106	90	110	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-26002**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **7/7/2010**	Run ID: **5975X_100707B**
Client ID: **ZZZZZ**	Batch ID: **26002**	TestNo: **SW8260B**		Analysis Date: **7/7/2010**	SeqNo: **685199**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	0.12	1.00									J
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
n-Propylbenzene	ND	1.00									
Naphthalene	ND	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	97.5	0	100	0	97.5	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	86.74	0	100	0	86.7	73.5	125	0	0		
Surr: Dibromofluoromethane	106.3	0	100	0	106	58.8	148	0	0		
Surr: Toluene-d8	91.88	0	100	0	91.9	79.8	137	0	0		

Sample ID: **LCS-26002**	SampType: **LCS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **7/7/2010**	Run ID: **5975X_100707B**
Client ID: **ZZZZZ**	Batch ID: **26002**	TestNo: **SW8260B**		Analysis Date: **7/7/2010**	SeqNo: **685198**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.46	0.300	40	0	96.2	77.9	125	0	0		
Toluene	36.47	1.00	40	0	91.2	74.6	119	0	0		

Sample ID: **A1007006-02BMS**	SampType: **MS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **7/7/2010**	Run ID: **5975X_100707B**
Client ID: **ZZZZZ**	Batch ID: **26002**	TestNo: **SW8260B**		Analysis Date: **7/7/2010**	SeqNo: **685196**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.29	0.300	40	0	93.2	71.5	118	0	0		
Toluene	37.28	1.00	40	0	93.2	79.6	121	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **A1007006-02BMSD**	SampType: **MSD**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **7/7/2010**	Run ID: **5975X_100707B**
Client ID: **ZZZZZ**	Batch ID: **26002**	TestNo: **SW8260B**		Analysis Date: **7/7/2010**	SeqNo: **685197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.61	0.300	40	0	91.5	71.5	118	37.29	1.84	20	
Toluene	34.61	1.00	40	0	86.5	79.6	121	37.28	7.43	20	

Sample ID: **CCV-26002**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	Run ID: **5975X_100707B**
Client ID: **ZZZZZ**	Batch ID: **26002**	TestNo: **SW8260B**		Analysis Date: **7/7/2010**	SeqNo: **685193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	32.54	1.00	40	0	81.4	80	120	0	0		
Toluene	40.04	1.00	40	0	100	80	120	0	0		

Sample ID: **CCV-26002**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	Run ID: **5975X_100707B**
Client ID: **ZZZZZ**	Batch ID: **26002**	TestNo: **SW8260B**		Analysis Date: **7/8/2010**	SeqNo: **685209**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	32.52	1.00	40	0	81.3	80	120	0	0		
Toluene	39.41	1.00	40	0	98.5	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **MB-25987**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **7/6/2010**	Run ID: **GC-M_100707B**
Client ID: **ZZZZZ**	Batch ID: **25987**	TestNo: **NWTPH-Dx**		Analysis Date: **7/7/2010**	SeqNo: **685093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	0.0524	0.200									J
Surr: o-Terphenyl	0.2209	0	0.2	0	110	50	150	0	0		

Sample ID: **LCS-25987**	SampType: **LCS**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **7/6/2010**	Run ID: **GC-M_100707B**
Client ID: **ZZZZZ**	Batch ID: **25987**	TestNo: **NWTPH-Dx**		Analysis Date: **7/7/2010**	SeqNo: **685094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9874	0.0800	1	0	98.7	60.7	121	0	0		
Lube Oil	0.9119	0.200	1	0	91.2	64	126	0	0		

Sample ID: **LCSD-25987**	SampType: **LCSD**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **7/6/2010**	Run ID: **GC-M_100707B**
Client ID: **ZZZZZ**	Batch ID: **25987**	TestNo: **NWTPH-Dx**		Analysis Date: **7/7/2010**	SeqNo: **685095**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9906	0.0800	1	0	99.1	60.7	121	0.9874	0.330	20	
Lube Oil	0.9332	0.200	1	0	93.3	64	126	0.9119	2.32	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_100707B**
Client ID: **ZZZZZ**	Batch ID: **25987**	TestNo: **NWTPH-Dx**		Analysis Date: **7/7/2010**	SeqNo: **685092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6.385	0.0800	6.045	0	106	85	115	0	0		
Lube Oil	3.119	0.200	3.007	0	104	85	115	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_100707B**
Client ID: **ZZZZZ**	Batch ID: **25987**	TestNo: **NWTPH-Dx**		Analysis Date: **7/7/2010**	SeqNo: **685111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8.873	0.0800	8.06	0	110	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_100707B**
Client ID: **ZZZZZ**	Batch ID: **25987**	TestNo: **NWTPH-Dx**		Analysis Date: **7/7/2010**	SeqNo: **685111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	3.981	0.200	4.01	0	99.3	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **MB-26009**	SampType: **MBLK**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **7/9/2010**	Run ID: **GC-I_100709A**
Client ID: **ZZZZZ**	Batch ID: **26009**	TestNo: **NWTPH-Gx**		Analysis Date: **7/9/2010**	SeqNo: **685450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	37.53	100									J
Surr: 4-Bromofluorobenzene	107.5	0	100	0	107	50	150	0	0		

Sample ID: **LCS-26009**	SampType: **LCS**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **7/9/2010**	Run ID: **GC-I_100709A**
Client ID: **ZZZZZ**	Batch ID: **26009**	TestNo: **NWTPH-Gx**		Analysis Date: **7/9/2010**	SeqNo: **685449**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2723	100	2500	0	109	74.4	128	0	0		

Sample ID: **1007029-03BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **7/9/2010**	Run ID: **GC-I_100709A**
Client ID: **MW-3**	Batch ID: **26009**	TestNo: **NWTPH-Gx**		Analysis Date: **7/9/2010**	SeqNo: **685452**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	104.7	100	0	0	0	0	0	108.9	3.92	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-I_100709A**
Client ID: **ZZZZZ**	Batch ID: **26009**	TestNo: **NWTPH-Gx**		Analysis Date: **7/9/2010**	SeqNo: **685456**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	3164	100	3000	0	105	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **MB-25984**	SampType: **MBLK**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **7/6/2010**	Run ID: **5975Q_100706A**
Client ID: **ZZZZZ**	Batch ID: **25984**	TestNo: **8270SIM**		Analysis Date: **7/6/2010**	SeqNo: **684835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.0500									
Acenaphthylene	ND	0.0500									
Anthracene	ND	0.0500									
Benz(a)anthracene	0.02	0.0500									J
Benzo(a)pyrene	0.03	0.0500									J
Benzo(b)fluoranthene	0.04	0.0500									J
Benzo(g,h,i)perylene	0.01	0.0500									J
Benzo(k)fluoranthene	0.03	0.0500									J
Chrysene	0.01	0.0500									J
Dibenz(a,h)anthracene	0.01	0.0500									J
Fluoranthene	0.01	0.0500									J
Fluorene	0.01	0.0500									J
Indeno(1,2,3-cd)pyrene	0.01	0.0500									J
Naphthalene	ND	0.0500									
Phenanthrene	0.01	0.0500									J
Pyrene	0.01	0.0500									J
Surr: 2-Fluorobiphenyl	76.75	1.00	100	0	76.8	18.6	106	0	0		
Surr: Nitrobenzene-d5	78.6	1.00	100	0	78.6	17	130	0	0		
Surr: p-Terphenyl-d14	120	1.00	100	0	120	39.6	131	0	0		

Sample ID: **LCS-25984**	SampType: **LCS**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **7/6/2010**	Run ID: **5975Q_100706A**
Client ID: **ZZZZZ**	Batch ID: **25984**	TestNo: **8270SIM**		Analysis Date: **7/6/2010**	SeqNo: **684833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.42	0.0500	5	0	68.4	35.1	100	0	0		
Benzo(g,h,i)perylene	4.68	0.0500	5	0	93.6	20.8	120	0	0		
Chrysene	4.31	0.0500	5	0	86.2	39.1	119	0	0		
Naphthalene	3.32	0.0500	5	0	66.4	25.6	106	0	0		
Phenanthrene	3.72	0.0500	5	0	74.4	38.1	106	0	0		
Pyrene	4.32	0.0500	5	0	86.4	41.3	118	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **LCSD-25984**	SampType: **LCSD**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **7/6/2010**	Run ID: **5975Q_100706A**
Client ID: **ZZZZZ**	Batch ID: **25984**	TestNo: **8270SIM**		Analysis Date: **7/6/2010**	SeqNo: **684834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2.81	0.0500	5	0	56.2	35.1	100	3.42	19.6	20	
Benzo(g,h,i)perylene	3.3	0.0500	5	0	66	20.8	120	4.68	34.6	20	R
Chrysene	3.32	0.0500	5	0	66.4	39.1	119	4.31	26.0	20	R
Naphthalene	2.72	0.0500	5	0	54.4	25.6	106	3.32	19.9	20	
Phenanthrene	2.85	0.0500	5	0	57	38.1	106	3.72	26.5	20	R
Pyrene	3.27	0.0500	5	0	65.4	41.3	118	4.32	27.7	20	R

Sample ID: **CCV-25984**	SampType: **CCV**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date:	Run ID: **5975Q_100706A**
Client ID: **ZZZZZ**	Batch ID: **25984**	TestNo: **8270SIM**		Analysis Date: **7/6/2010**	SeqNo: **684832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.02	0.0500	1	0	102	70	130	0	0		
Acenaphthylene	1.01	0.0500	1	0	101	70	130	0	0		
Anthracene	0.91	0.0500	1	0	91	70	130	0	0		
Benz(a)anthracene	0.91	0.0500	1	0	91	70	130	0	0		
Benzo(a)pyrene	0.94	0.0500	1	0	94	70	130	0	0		
Benzo(b)fluoranthene	0.92	0.0500	1	0	92	70	130	0	0		
Benzo(g,h,i)perylene	1.11	0.0500	1	0	111	70	130	0	0		
Benzo(k)fluoranthene	1.18	0.0500	1	0	118	70	130	0	0		
Chrysene	1.04	0.0500	1	0	104	70	130	0	0		
Dibenz(a,h)anthracene	1.02	0.0500	1	0	102	70	130	0	0		
Fluoranthene	0.89	0.0500	1	0	89	70	130	0	0		
Fluorene	0.97	0.0500	1	0	97	70	130	0	0		
Indeno(1,2,3-cd)pyrene	1.05	0.0500	1	0	105	70	130	0	0		
Naphthalene	1	0.0500	1	0	100	70	130	0	0		
Phenanthrene	0.99	0.0500	1	0	99	70	130	0	0		
Pyrene	1.01	0.0500	1	0	101	70	130	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1007029
Project: Powell-Salem / 07303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **CCV-25984**	SampType: **CCV**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date:	Run ID: **5975Q_100706A**
Client ID: **ZZZZZ**	Batch ID: **25984**	TestNo: **8270SIM**		Analysis Date: **7/7/2010**	SeqNo: **684946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.91	0.0500	1	0	91	70	130	0	0		
Acenaphthylene	0.94	0.0500	1	0	94	70	130	0	0		
Anthracene	0.9	0.0500	1	0	90	70	130	0	0		
Benz(a)anthracene	0.86	0.0500	1	0	86	70	130	0	0		
Benzo(a)pyrene	0.86	0.0500	1	0	86	70	130	0	0		
Benzo(b)fluoranthene	0.91	0.0500	1	0	91	70	130	0	0		
Benzo(g,h,i)perylene	0.97	0.0500	1	0	97	70	130	0	0		
Benzo(k)fluoranthene	0.95	0.0500	1	0	95	70	130	0	0		
Chrysene	0.92	0.0500	1	0	92	70	130	0	0		
Dibenz(a,h)anthracene	0.89	0.0500	1	0	89	70	130	0	0		
Fluoranthene	0.88	0.0500	1	0	88	70	130	0	0		
Fluorene	0.91	0.0500	1	0	91	70	130	0	0		
Indeno(1,2,3-cd)pyrene	0.9	0.0500	1	0	90	70	130	0	0		
Naphthalene	0.92	0.0500	1	0	92	70	130	0	0		
Phenanthrene	0.89	0.0500	1	0	89	70	130	0	0		
Pyrene	1.01	0.0500	1	0	101	70	130	0	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

KEY TO FLAGS

Rev. May 12, 2010

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
A4	The product appears to be aged or degraded diesel.
B	The blank exhibited a positive result great than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
G	Result may be biased high due to biogenic interferences. Clean up is recommended.
H	Sample was analyzed outside recommended holding time.
HT	At clients request, samples was analyzed outside of recommended holding time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits; post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

CHAIN OF CUSTODY RECORD

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: John Day
Company: ECN
Address: PO Box 230163
PTLD OR 97281
Phone: 3429760 Fax: 2139980
Project No. 07303 Project Name: Powell-Salem
Project Site Location OR ✓ WA _____ Other _____
Invoice To _____ P.O. No. _____

Collected By:
Signature
Printed: John Day

Signature _____
Printed _____

Turn Around Time
☐ Normal 5-7 Business Days
☐ Rush _____
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1007029
Shipped Via: Client
Air Bill No. —
Temperature On Receipt 7 °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: 8260m VOCs	TPH-Gx	TPH-Dx	PAHs	Dissolved Pb	Dissolved Mg Ca					Comments	Lab I.D.
6/30/10	0830	MW-1	W	5	X	X	X									
	1030	MW-2		6	X	X	X	X	X	X						
	0930	MW-3		6	X	X	X	X	X							
	0730	MW-5		5	X	X	X									

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
Company: ECN	7/2/10	1420	Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Nikki Bippes Date: 7/2/10 Time: 1420

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
(503) 607-1331
Fax (503) 607-1336

April 15, 2010

John Day
Environmental Compliance Northwest, Inc.
P.O. Box 230163
Portland, OR 97281

TEL: (503) 372-9760
FAX: (503) 213-9980

RE: Powell-Salem / 07-303

Dear John Day:

Order No.: 1004008

Specialty Analytical received 5 samples on 4/1/2010 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Cindy Hillyard
Project Manager

Technical Review

Specialty Analytical

Date: *15-Apr-10*

CLIENT: Environmental Compliance Northwest, Inc.
Client Sample ID: MW-1
Lab Order: 1004008
Collection Date: 3/31/2010 12:00:00 PM
Project: Powell-Salem / 07-303
Lab ID: 1004008-01
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.212	0.0765		mg/L	1	4/5/2010
Lube Oil	0.255	0.191		mg/L	1	4/5/2010
Surr: o-Terphenyl	75.4	50-150		%REC	1	4/5/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	4/2/2010
Surr: 4-Bromofluorobenzene	63.1	50-150		%REC	1	4/2/2010
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
Benzene	ND	0.300		µg/L	1	4/2/2010 9:40:00 PM
Ethylbenzene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
m,p-Xylene	ND	2.00		µg/L	1	4/2/2010 9:40:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
Naphthalene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
o-Xylene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
Toluene	ND	1.00		µg/L	1	4/2/2010 9:40:00 PM
Surr: 1,2-Dichloroethane-d4	94.1	72.2-129		%REC	1	4/2/2010 9:40:00 PM
Surr: 4-Bromofluorobenzene	102	73.5-125		%REC	1	4/2/2010 9:40:00 PM
Surr: Dibromofluoromethane	92.5	58.8-148		%REC	1	4/2/2010 9:40:00 PM
Surr: Toluene-d8	109	79.8-137		%REC	1	4/2/2010 9:40:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT: Environmental Compliance Northwest, Inc.
Client Sample ID: MW-2
Lab Order: 1004008
Collection Date: 3/31/2010 3:00:00 PM
Project: Powell-Salem / 07-303
Lab ID: 1004008-02
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	4.51	0.0769		mg/L	1	4/5/2010
Lube Oil	0.819	0.192		mg/L	1	4/5/2010
Surr: o-Terphenyl	108	50-150		%REC	1	4/5/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	1810	100		µg/L	1	4/2/2010
Surr: 4-Bromofluorobenzene	80.5	50-150		%REC	1	4/2/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **zau**
Cadmium	ND	0.10		ug/L	1	4/5/2010 5:53:00 PM
Chromium	ND	1.0		ug/L	1	4/5/2010 5:53:00 PM
Lead	ND	0.10		ug/L	1	4/5/2010 5:53:00 PM
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	2.04	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Acenaphthylene	0.508	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Anthracene	0.171	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Benz(a)anthracene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Benzo(a)pyrene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Benzo(b)fluoranthene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Benzo(g,h,i)perylene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Benzo(k)fluoranthene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Chrysene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Dibenz(a,h)anthracene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Fluoranthene	0.0577	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Fluorene	4.49	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Naphthalene	1.31	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Phenanthrene	3.22	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Pyrene	0.127	0.0500		µg/L	1	4/2/2010 4:39:00 PM
Surr: 2-Fluorobiphenyl	77.1	18.6-106		%REC	1	4/2/2010 4:39:00 PM
Surr: Nitrobenzene-d5	78.5	17-130		%REC	1	4/2/2010 4:39:00 PM
Surr: p-Terphenyl-d14	113	39.6-131		%REC	1	4/2/2010 4:39:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT: Environmental Compliance Northwest, Inc.
Client Sample ID: MW-2
Lab Order: 1004008
Collection Date: 3/31/2010 3:00:00 PM
Project: Powell-Salem / 07-303
Lab ID: 1004008-02
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,3-Trichloropropane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
2-Butanone	ND	10.0		µg/L	1	4/2/2010 10:14:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
2-Hexanone	ND	10.0		µg/L	1	4/2/2010 10:14:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	4/2/2010 10:14:00 PM
Acetone	ND	50.0		µg/L	1	4/2/2010 10:14:00 PM
Acrylonitrile	ND	5.00		µg/L	1	4/2/2010 10:14:00 PM
Benzene	168	0.300		µg/L	1	4/2/2010 10:14:00 PM
Bromobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Bromochloromethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Bromoform	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Bromomethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Carbon disulfide	ND	2.00		µg/L	1	4/2/2010 10:14:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Chlorobenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Chloroethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Chloroform	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Chloromethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Dibromomethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Dichlorodifluoromethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Ethylbenzene	6.63	1.00		µg/L	1	4/2/2010 10:14:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Isopropylbenzene	28.3	1.00		µg/L	1	4/2/2010 10:14:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT: Environmental Compliance Northwest, Inc.
Client Sample ID: MW-2
Lab Order: 1004008
Collection Date: 3/31/2010 3:00:00 PM
Project: Powell-Salem / 07-303
Lab ID: 1004008-02
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
m,p-Xylene	ND	2.00		µg/L	1	4/2/2010 10:14:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Methylene chloride	ND	20.0		µg/L	1	4/2/2010 10:14:00 PM
n-Butylbenzene	4.40	1.00		µg/L	1	4/2/2010 10:14:00 PM
n-Propylbenzene	91.7	1.00		µg/L	1	4/2/2010 10:14:00 PM
Naphthalene	5.86	1.00		µg/L	1	4/2/2010 10:14:00 PM
o-Xylene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
sec-Butylbenzene	2.78	1.00		µg/L	1	4/2/2010 10:14:00 PM
Styrene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Toluene	1.29	1.00		µg/L	1	4/2/2010 10:14:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Trichloroethene	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Vinyl chloride	ND	1.00		µg/L	1	4/2/2010 10:14:00 PM
Surr: 1,2-Dichloroethane-d4	96.8	72.2-129		%REC	1	4/2/2010 10:14:00 PM
Surr: 4-Bromofluorobenzene	95.4	73.5-125		%REC	1	4/2/2010 10:14:00 PM
Surr: Dibromofluoromethane	93.4	58.8-148		%REC	1	4/2/2010 10:14:00 PM
Surr: Toluene-d8	97.1	79.8-137		%REC	1	4/2/2010 10:14:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	1004008	**Collection Date:**	3/31/2010 2:00:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1004008-03	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.171	0.0763		mg/L	1	4/5/2010
Lube Oil	0.274	0.191		mg/L	1	4/5/2010
Surr: o-Terphenyl	76.5	50-150		%REC	1	4/5/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	4/2/2010
Surr: 4-Bromofluorobenzene	69.4	50-150		%REC	1	4/2/2010
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	0.217	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Acenaphthylene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Anthracene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Benz(a)anthracene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Benzo(a)pyrene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Benzo(b)fluoranthene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Benzo(g,h,i)perylene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Benzo(k)fluoranthene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Chrysene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Dibenz(a,h)anthracene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Fluoranthene	0.202	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Fluorene	0.259	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Naphthalene	1.42	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Phenanthrene	0.650	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Pyrene	0.113	0.0500		µg/L	1	4/2/2010 5:04:00 PM
Surr: 2-Fluorobiphenyl	63.6	18.6-106		%REC	1	4/2/2010 5:04:00 PM
Surr: Nitrobenzene-d5	65.8	17-130		%REC	1	4/2/2010 5:04:00 PM
Surr: p-Terphenyl-d14	91.8	39.6-131		%REC	1	4/2/2010 5:04:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
Benzene	ND	0.300		µg/L	1	4/2/2010 10:49:00 PM
Ethylbenzene	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
Isopropylbenzene	2.22	1.00		µg/L	1	4/2/2010 10:49:00 PM
m,p-Xylene	ND	2.00		µg/L	1	4/2/2010 10:49:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
Naphthalene	1.36	1.00		µg/L	1	4/2/2010 10:49:00 PM
o-Xylene	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	1004008	**Collection Date:**	3/31/2010 2:00:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1004008-03	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
Toluene	ND	1.00		µg/L	1	4/2/2010 10:49:00 PM
Surr: 1,2-Dichloroethane-d4	98.5	72.2-129		%REC	1	4/2/2010 10:49:00 PM
Surr: 4-Bromofluorobenzene	95.6	73.5-125		%REC	1	4/2/2010 10:49:00 PM
Surr: Dibromofluoromethane	95.3	58.8-148		%REC	1	4/2/2010 10:49:00 PM
Surr: Toluene-d8	103	79.8-137		%REC	1	4/2/2010 10:49:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-4
Lab Order:	1004008	**Collection Date:**	3/31/2010 1:00:00 PM
Project:	Powell-Salem / 07-303		
Lab ID:	1004008-04	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.118	0.0768		mg/L	1	4/5/2010
Lube Oil	0.218	0.192		mg/L	1	4/5/2010
Surr: o-Terphenyl	79.3	50-150		%REC	1	4/5/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	4/2/2010
Surr: 4-Bromofluorobenzene	73.8	50-150		%REC	1	4/2/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **zau**
Lead	ND	0.10		ug/L	1	4/14/2010 3:57:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
Benzene	7.23	0.300		µg/L	1	4/2/2010 2:48:00 PM
Ethylbenzene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
Isopropylbenzene	2.31	1.00		µg/L	1	4/2/2010 2:48:00 PM
m,p-Xylene	ND	2.00		µg/L	1	4/2/2010 2:48:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
Naphthalene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
o-Xylene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
Toluene	ND	1.00		µg/L	1	4/2/2010 2:48:00 PM
Surr: 1,2-Dichloroethane-d4	95.0	72.2-129		%REC	1	4/2/2010 2:48:00 PM
Surr: 4-Bromofluorobenzene	103	73.5-125		%REC	1	4/2/2010 2:48:00 PM
Surr: Dibromofluoromethane	90.5	58.8-148		%REC	1	4/2/2010 2:48:00 PM
Surr: Toluene-d8	96.0	79.8-137		%REC	1	4/2/2010 2:48:00 PM

Specialty Analytical

Date: *15-Apr-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-5
Lab Order:	1004008	**Collection Date:**	3/31/2010 11:00:00 AM
Project:	Powell-Salem / 07-303		
Lab ID:	1004008-05	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	ND	0.0775		mg/L	1	4/5/2010
Lube Oil	ND	0.194		mg/L	1	4/5/2010
Surr: o-Terphenyl	75.2	50-150		%REC	1	4/5/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	4/2/2010
Surr: 4-Bromofluorobenzene	71.1	50-150		%REC	1	4/2/2010
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
Benzene	ND	0.300		µg/L	1	4/2/2010 3:22:00 PM
Ethylbenzene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
m,p-Xylene	ND	2.00		µg/L	1	4/2/2010 3:22:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
Naphthalene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
o-Xylene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
Toluene	ND	1.00		µg/L	1	4/2/2010 3:22:00 PM
Surr: 1,2-Dichloroethane-d4	98.4	72.2-129		%REC	1	4/2/2010 3:22:00 PM
Surr: 4-Bromofluorobenzene	101	73.5-125		%REC	1	4/2/2010 3:22:00 PM
Surr: Dibromofluoromethane	96.0	58.8-148		%REC	1	4/2/2010 3:22:00 PM
Surr: Toluene-d8	100	79.8-137		%REC	1	4/2/2010 3:22:00 PM

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **1004022-03AMS**	SampType: **MS**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/5/2010**	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/5/2010**	SeqNo: **666823**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	47.74	0.10	50	0.1553	95.2	70	130	0	0		
Chromium	44.96	1.0	50	0	89.9	70	130	0	0		
Lead	47.56	0.10	50	0	95.1	70	130	0	0		

Sample ID: **1004022-03AMS**	SampType: **MS**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/5/2010**	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/6/2010**	SeqNo: **666948**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	59.1	1.0	50	9.651	98.9	70	130	0	0		

Sample ID: **1004008-04CMS**	SampType: **MS**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/14/2010**	Run ID: **ICPMS_100414C**
Client ID: **MW-4**	Batch ID: **25381**	TestNo: **SW6020**		Analysis Date: **4/14/2010**	SeqNo: **668247**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	48.69	0.10	50	0	97.4	70	130	0	0		

Sample ID: **1004022-03AMSD**	SampType: **MSD**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/5/2010**	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/5/2010**	SeqNo: **666824**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.82	1.0	50	9.651	96.3	70	130	55.82	3.52	20	
Cadmium	49.22	0.10	50	0.1553	98.1	70	130	47.74	3.05	20	
Chromium	47.25	1.0	50	0	94.5	70	130	44.96	4.97	20	
Lead	50.18	0.10	50	0	100	70	130	47.56	5.36	20	

Sample ID: **1004008-04CMSD**	SampType: **MSD**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/14/2010**	Run ID: **ICPMS_100414C**
Client ID: **MW-4**	Batch ID: **25381**	TestNo: **SW6020**		Analysis Date: **4/14/2010**	SeqNo: **668248**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **1004008-04CMSD**	SampType: **MSD**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/14/2010**	Run ID: **ICPMS_100414C**
Client ID: **MW-4**	Batch ID: **25381**	TestNo: **SW6020**		Analysis Date: **4/14/2010**	SeqNo: **668248**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	46.45	0.10	50	0	92.9	70	130	48.69	4.71	20	

Sample ID: **1004022-03ADUP**	SampType: **DUP**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/5/2010**	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/5/2010**	SeqNo: **666822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.1409	0.10	0	0	0	0	0	0.1553	9.72	20	
Chromium	ND	1.0	0	0	0	0	0	0	0	20	
Lead	ND	0.10	0	0	0	0	0	0	0	20	

Sample ID: **1004022-03ADUP**	SampType: **DUP**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/5/2010**	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/6/2010**	SeqNo: **666947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.89	1.0	0	0	0	0	0	9.651	2.45	20	

Sample ID: **1004008-04CDUP**	SampType: **DUP**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date: **4/14/2010**	Run ID: **ICPMS_100414C**
Client ID: **MW-4**	Batch ID: **25381**	TestNo: **SW6020**		Analysis Date: **4/14/2010**	SeqNo: **668246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.10	0	0	0	0	0	0	0	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/5/2010**	SeqNo: **666819**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.05	1.0	50	0	96.1	90	110	0	0		
Cadmium	47.78	0.10	50	0	95.6	90	110	0	0		
Chromium	45.28	1.0	50	0	90.6	90	110	0	0		
Lead	47.05	0.10	50	0	94.1	90	110	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ** Batch ID: **25307** TestNo: **SW6020** Analysis Date: **4/5/2010** SeqNo: **666826**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	47.88	1.0	50	0	95.8	90	110	0	0		
Cadmium	48.61	0.10	50	0	97.2	90	110	0	0		
Chromium	45.32	1.0	50	0	90.6	90	110	0	0		
Lead	46.85	0.10	50	0	93.7	90	110	0	0		

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ** Batch ID: **25307** TestNo: **SW6020** Analysis Date: **4/5/2010** SeqNo: **666833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.17	1.0	50	0	96.3	90	110	0	0		
Cadmium	48.56	0.10	50	0	97.1	90	110	0	0		
Chromium	46.34	1.0	50	0	92.7	90	110	0	0		
Lead	46.24	0.10	50	0	92.5	90	110	0	0		

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ** Batch ID: **25307** TestNo: **SW6020** Analysis Date: **4/6/2010** SeqNo: **666951**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.42	1.0	50	0	101	90	110	0	0		

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100414C**
Client ID: **ZZZZZ** Batch ID: **25381** TestNo: **SW6020** Analysis Date: **4/14/2010** SeqNo: **668243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	47.44	0.10	50	0	94.9	90	110	0	0		

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_WDISS** Units: **ug/L** Prep Date: Run ID: **ICPMS_100414C**
Client ID: **ZZZZZ** Batch ID: **25381** TestNo: **SW6020** Analysis Date: **4/14/2010** SeqNo: **668249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_100414C**
Client ID: **ZZZZZ**	Batch ID: **25381**	TestNo: **SW6020**		Analysis Date: **4/14/2010**	SeqNo: **668249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	46.15	0.10	50	0	92.3	90	110	0	0		

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/5/2010**	SeqNo: **666818**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.03	1.0	50	0	98.1	90	110	0	0		
Cadmium	47.39	0.10	50	0	94.8	90	110	0	0		
Chromium	47.7	1.0	50	0	95.4	90	110	0	0		
Lead	46.57	0.10	50	0	93.1	90	110	0	0		

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_100405C**
Client ID: **ZZZZZ**	Batch ID: **25307**	TestNo: **SW6020**		Analysis Date: **4/6/2010**	SeqNo: **666946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.19	1.0	50	0	100	90	110	0	0		

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6020_WDISS**	Units: **ug/L**	Prep Date:	Run ID: **ICPMS_100414C**
Client ID: **ZZZZZ**	Batch ID: **25381**	TestNo: **SW6020**		Analysis Date: **4/14/2010**	SeqNo: **668242**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	47.14	0.10	50	0	94.3	90	110	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-25304**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5973L_100402A**
Client ID: **ZZZZZ**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,1-Dichloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
1,1-Dichloropropene	ND	1.00									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,2-Dichloropropane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,3-Dichloropropane	ND	1.00									
1,4-Dichlorobenzene	0.13	1.00									J
2,2-Dichloropropane	ND	1.00									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	1.00									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
4-Methyl-2-pentanone	ND	20.0									
Acetone	2.04	50.0									J
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									
Bromobenzene	ND	1.00									

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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-25304** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **4/1/2010** Run ID: **5973L_100402A**
Client ID: **ZZZZZ** Batch ID: **25304** TestNo: **SW8260B** Analysis Date: **4/2/2010** SeqNo: **666510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	1.00									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon disulfide	ND	2.00									
Carbon tetrachloride	ND	1.00									
Chlorobenzene	ND	1.00									
Chloroethane	ND	1.00									
Chloroform	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Dibromochloromethane	ND	1.00									
Dibromomethane	ND	1.00									
Dichlorodifluoromethane	ND	1.00									
Ethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
Methylene chloride	11.14	20.0									J
n-Butylbenzene	ND	1.00									
n-Propylbenzene	ND	1.00									
Naphthalene	0.72	1.00									J
o-Xylene	ND	1.00									
sec-Butylbenzene	ND	1.00									
Styrene	ND	1.00									
tert-Butylbenzene	ND	1.00									
Tetrachloroethene	ND	1.00									
Toluene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									

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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-25304**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5973L_100402A**
Client ID: **ZZZZZ**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	1.00									
Trichloroethene	ND	1.00									
Trichlorofluoromethane	ND	1.00									
Vinyl chloride	ND	1.00									
Surr: 1,2-Dichloroethane-d4	96.83	0	100	0	96.8	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	100.1	0	100	0	100	73.5	125	0	0		
Surr: Dibromofluoromethane	92.16	0	100	0	92.2	58.8	148	0	0		
Surr: Toluene-d8	94.08	0	100	0	94.1	79.8	137	0	0		

Sample ID: **LCS-25304**	SampType: **LCS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5973L_100402A**
Client ID: **ZZZZZ**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	42.21	1.00	40	0	106	69.9	130	0	0		
Benzene	45.36	0.300	40	0	113	77.9	125	0	0		
Chlorobenzene	40.9	1.00	40	0	102	82.5	114	0	0		
Toluene	39.36	1.00	40	0	98.4	74.6	119	0	0		
Trichloroethene	43.76	1.00	40	0	109	74.7	125	0	0		

Sample ID: **1004008-01BMS**	SampType: **MS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5973L_100402A**
Client ID: **MW-1**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666508**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	44.94	1.00	40	0	112	51.4	176	0	0		
Benzene	43.12	0.300	40	0	108	71.5	118	0	0		
Chlorobenzene	38.64	1.00	40	0	96.6	79.8	114	0	0		
Toluene	38.2	1.00	40	0	95.5	79.6	121	0	0		
Trichloroethene	42.92	1.00	40	0	107	73.6	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **1004008-01BMSD**	SampType: **MSD**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5973L_100402A**
Client ID: **MW-1**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666509**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	42.83	1.00	40	0	107	51.4	176	44.94	4.81	20	
Benzene	42.97	0.300	40	0	107	71.5	118	43.12	0.348	20	
Chlorobenzene	38.51	1.00	40	0	96.3	79.8	114	38.64	0.337	20	
Toluene	36.91	1.00	40	0	92.3	79.6	121	38.2	3.43	20	
Trichloroethene	43.23	1.00	40	0	108	73.6	120	42.92	0.720	20	

Sample ID: **CCV-25304**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	Run ID: **5973L_100402A**
Client ID: **ZZZZZ**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.83	1.00	40	0	105	80	120	0	0		
1,2-Dichloropropane	43.99	1.00	40	0	110	80	120	0	0		
Chloroform	38.88	1.00	40	0	97.2	80	120	0	0		
Ethylbenzene	39.71	1.00	40	0	99.3	80	120	0	0		
Toluene	38.2	1.00	40	0	95.5	80	120	0	0		
Vinyl chloride	34.85	1.00	40	0	87.1	80	120	0	0		

Sample ID: **CCV-25304**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	Run ID: **5973L_100402A**
Client ID: **ZZZZZ**	Batch ID: **25304**	TestNo: **SW8260B**		Analysis Date: **4/2/2010**	SeqNo: **666515**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	47.52	1.00	40	0	119	80	120	0	0		
1,2-Dichloropropane	47.54	1.00	40	0	119	80	120	0	0		
Chloroform	42.35	1.00	40	0	106	80	120	0	0		
Ethylbenzene	44.19	1.00	40	0	110	80	120	0	0		
Toluene	42.11	1.00	40	0	105	80	120	0	0		
Vinyl chloride	42.62	1.00	40	0	107	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **MB-25312**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **4/5/2010**	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/5/2010**	SeqNo: **666775**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.0188	0.0800									J
Lube Oil	ND	0.200									
Surr: o-Terphenyl	0.153	0	0.2	0	76.5	50	150	0	0		

Sample ID: **MB-25312**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **4/5/2010**	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/6/2010**	SeqNo: **666858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hydraulic Oil	0.1703	0.200									J

Sample ID: **LCS-25312**	SampType: **LCS**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **4/5/2010**	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/5/2010**	SeqNo: **666776**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.8325	0.0800	1	0	83.2	60.7	121	0	0		
Lube Oil	0.872	0.200	1	0	87.2	64	126	0	0		

Sample ID: **LCSD-25312**	SampType: **LCSD**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **4/5/2010**	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/5/2010**	SeqNo: **666777**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9085	0.0800	1	0	90.8	60.7	121	0.8325	8.74	20	
Lube Oil	1.038	0.200	1	0	104	64	126	0.872	17.4	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/5/2010**	SeqNo: **666774**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6.117	0.0800	6.15	0	99.5	85	115	0	0		
Lube Oil	2.884	0.200	3.007	0	95.9	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/5/2010**	SeqNo: **666793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8.231	0.0800	8.2	0	100	85	115	0	0		
Lube Oil	3.696	0.200	4.01	0	92.2	85	115	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_100405A**
Client ID: **ZZZZZ**	Batch ID: **25312**	TestNo: **NWTPH-Dx**		Analysis Date: **4/6/2010**	SeqNo: **666857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hydraulic Oil	2.864	0.200	3	0	95.5	85	115	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **MB-25305**	SampType: **MBLK**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **4/2/2010**	Run ID: **GC-I_100402A**
Client ID: **ZZZZZ**	Batch ID: **25305**	TestNo: **NWTPH-Gx**		Analysis Date: **4/2/2010**	SeqNo: **666462**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	100									
Surr: 4-Bromofluorobenzene	77.06	0	100	0	77.1	50	150	0	0		

Sample ID: **LCS-25305**	SampType: **LCS**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **4/2/2010**	Run ID: **GC-I_100402A**
Client ID: **ZZZZZ**	Batch ID: **25305**	TestNo: **NWTPH-Gx**		Analysis Date: **4/2/2010**	SeqNo: **666461**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2737	100	2500	0	109	74.4	128	0	0		

Sample ID: **1003188-01BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **4/2/2010**	Run ID: **GC-I_100402A**
Client ID: **ZZZZZ**	Batch ID: **25305**	TestNo: **NWTPH-Gx**		Analysis Date: **4/2/2010**	SeqNo: **666464**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	100	0	0	0	0	0	0	0	20	

Sample ID: **1003188-03BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date: **4/2/2010**	Run ID: **GC-I_100402A**
Client ID: **ZZZZZ**	Batch ID: **25305**	TestNo: **NWTPH-Gx**		Analysis Date: **4/2/2010**	SeqNo: **666476**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	4831	500	0	0	0	0	0	5359	10.4	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-I_100402A**
Client ID: **ZZZZZ**	Batch ID: **25305**	TestNo: **NWTPH-Gx**		Analysis Date: **4/2/2010**	SeqNo: **666479**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2856	100	2800	0	102	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-I_100402A**
Client ID: **ZZZZZ**	Batch ID: **25305**	TestNo: **NWTPH-Gx**		Analysis Date: **4/2/2010**	SeqNo: **666485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	3160	100	3000	0	105	80	120	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **MB-25296**	SampType: **MBLK**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5975Q_100402B**
Client ID: **ZZZZZ**	Batch ID: **25296**	TestNo: **8270SIM**		Analysis Date: **4/2/2010**	SeqNo: **666359**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.0500									
Acenaphthylene	ND	0.0500									
Anthracene	ND	0.0500									
Benz(a)anthracene	0.01643	0.0500									J
Benzo(a)pyrene	0.00944	0.0500									J
Benzo(b)fluoranthene	ND	0.0500									
Benzo(g,h,i)perylene	0.01642	0.0500									J
Benzo(k)fluoranthene	0.01407	0.0500									J
Chrysene	ND	0.0500									
Dibenz(a,h)anthracene	0.01628	0.0500									J
Fluoranthene	ND	0.0500									
Fluorene	0.00195	0.0500									J
Indeno(1,2,3-cd)pyrene	0.01386	0.0500									J
Naphthalene	ND	0.0500									
Phenanthrene	ND	0.0500									
Pyrene	ND	0.0500									
Surr: 2-Fluorobiphenyl	10.77	1.00	20	0	53.9	18.6	106	0	0		
Surr: Nitrobenzene-d5	11.82	1.00	20	0	59.1	17	130	0	0		
Surr: p-Terphenyl-d14	17.23	1.00	20	0	86.2	39.6	131	0	0		

Sample ID: **LCS-25296**	SampType: **LCS**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5975Q_100402B**
Client ID: **ZZZZZ**	Batch ID: **25296**	TestNo: **8270SIM**		Analysis Date: **4/2/2010**	SeqNo: **666357**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2.962	0.0500	5	0	59.2	35.1	100	0	0		
Benzo(g,h,i)perylene	4.062	0.0500	5	0.01642	80.9	20.8	120	0	0		
Chrysene	3.576	0.0500	5	0	71.5	39.1	119	0	0		
Naphthalene	2.939	0.0500	5	0	58.8	25.6	106	0	0		
Phenanthrene	3.027	0.0500	5	0	60.5	38.1	106	0	0		
Pyrene	3.429	0.0500	5	0	68.6	41.3	118	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **LCSD-25296**	SampType: **LCSD**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **4/1/2010**	Run ID: **5975Q_100402B**
Client ID: **ZZZZZ**	Batch ID: **25296**	TestNo: **8270SIM**		Analysis Date: **4/2/2010**	SeqNo: **666358**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.096	0.0500	5	0	61.9	35.1	100	2.962	4.43	20	
Benzo(g,h,i)perylene	4.088	0.0500	5	0.01642	81.4	20.8	120	4.062	0.639	20	
Chrysene	3.62	0.0500	5	0	72.4	39.1	119	3.576	1.23	20	
Naphthalene	2.964	0.0500	5	0	59.3	25.6	106	2.939	0.866	20	
Phenanthrene	3.212	0.0500	5	0	64.2	38.1	106	3.027	5.91	20	
Pyrene	3.569	0.0500	5	0	71.4	41.3	118	3.429	4.01	20	

Sample ID: **CCV-25296**	SampType: **CCV**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date:	Run ID: **5975Q_100402B**
Client ID: **ZZZZZ**	Batch ID: **25296**	TestNo: **8270SIM**		Analysis Date: **4/2/2010**	SeqNo: **666356**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	4.991	0.0500	5	0	99.8	70	130	0	0		
Acenaphthylene	5.306	0.0500	5	0	106	70	130	0	0		
Anthracene	4.857	0.0500	5	0	97.1	70	130	0	0		
Benz(a)anthracene	5.763	0.0500	5	0	115	70	130	0	0		
Benzo(a)pyrene	5.531	0.0500	5	0	111	70	130	0	0		
Benzo(b)fluoranthene	5.648	0.0500	5	0	113	70	130	0	0		
Benzo(g,h,i)perylene	5.563	0.0500	5	0	111	70	130	0	0		
Benzo(k)fluoranthene	4.948	0.0500	5	0	99	70	130	0	0		
Chrysene	4.709	0.0500	5	0	94.2	70	130	0	0		
Dibenz(a,h)anthracene	5.113	0.0500	5	0	102	70	130	0	0		
Fluoranthene	4.971	0.0500	5	0	99.4	70	130	0	0		
Fluorene	5.059	0.0500	5	0	101	70	130	0	0		
Indeno(1,2,3-cd)pyrene	5.116	0.0500	5	0	102	70	130	0	0		
Naphthalene	4.488	0.0500	5	0	89.8	70	130	0	0		
Phenanthrene	4.605	0.0500	5	0	92.1	70	130	0	0		
Pyrene	4.8	0.0500	5	0	96	70	130	0	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: Environmental Compliance Northwest, Inc.
Work Order: 1004008
Project: Powell-Salem / 07-303

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **CCV-25296** SampType: **CCV** TestCode: **PAHLL_W** Units: **µg/L** Prep Date: Run ID: **5975Q_100402B**
Client ID: **ZZZZZ** Batch ID: **25296** TestNo: **8270SIM** Analysis Date: **4/5/2010** SeqNo: **666543**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	5.12	0.0500	5	0	102	70	130	0	0		
Acenaphthylene	5.26	0.0500	5	0	105	70	130	0	0		
Anthracene	4.78	0.0500	5	0	95.6	70	130	0	0		
Benz(a)anthracene	5.89	0.0500	5	0	118	70	130	0	0		
Benzo(a)pyrene	5.59	0.0500	5	0	112	70	130	0	0		
Benzo(b)fluoranthene	5.72	0.0500	5	0	114	70	130	0	0		
Benzo(g,h,i)perylene	5.64	0.0500	5	0	113	70	130	0	0		
Benzo(k)fluoranthene	4.98	0.0500	5	0	99.6	70	130	0	0		
Chrysene	4.74	0.0500	5	0	94.8	70	130	0	0		
Dibenz(a,h)anthracene	5.21	0.0500	5	0	104	70	130	0	0		
Fluoranthene	4.98	0.0500	5	0	99.6	70	130	0	0		
Fluorene	5.18	0.0500	5	0	104	70	130	0	0		
Indeno(1,2,3-cd)pyrene	5.22	0.0500	5	0	104	70	130	0	0		
Naphthalene	4.79	0.0500	5	0	95.8	70	130	0	0		
Phenanthrene	4.62	0.0500	5	0	92.4	70	130	0	0		
Pyrene	4.77	0.0500	5	0	95.4	70	130	0	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

KEY TO FLAGS

A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.

A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.

A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.

A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

B The blank exhibited a positive result greater than the reporting limit for this compound.

CN See Case Narrative.

D Result is based from a dilution.

E Result exceeds the calibration range for this compound. The result should be considered as estimate.

F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

H Sample was analyzed outside recommended hold time.

HT At clients request, sample was analyzed outside recommended hold time.

J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.

K Diesel result is biased high due to amount of Oil contained in the sample.

L Diesel result is biased high due to amount of Gasoline contained in the sample.

M Oil result is biased high due to amount of Diesel contained in the sample.

N Gasoline result is biased high due to amount of Diesel contained in the sample.

MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.

MI Result is outside control limits due to matrix interference.

MSA Value determined by Method of Standard Addition.

O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.

P Detection levels of Methylene Chloride may be laboratory contamination, due to previous analysis or background levels.

Q Detection levels elevated due to sample matrix.

R RPD control limits were exceeded.

RF Duplicate failed due to result being at or near the method-reporting limit.

RP Matrix spike values exceed established QC limits, post digestion spike is in control.

S Recovery is outside control limits.

SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.

* The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

CHAIN OF CUSTODY RECORD

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: John Day
Company: ECN
Address: PO Box 230163
PMB OR 97281
Phone: 372-9760 Fax: 213-9980
Project No. 07-303 Project Name: Powell-Salem
Project Site Location OR X WA ____ Other ____
Invoice To ____ P.O. No. ____

Collected By:
Signature:
Printed: John Day

Signature:
Printed:

Turn Around Time

☒ Normal 5-7 Business Days
☐ Rush ____
Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: 8260m VOCs	TPH-Dx	TPH-Gx	VOCs (8260)	PAHs	Dissolved Pb	Dissolved Cr, Cd	Comments	Lab I.D.
3/31/10	1200	MW-1	W	5	X	X	X					Run PAHs if Dx ≥ 0.5 ppm	
	1500	MW-2		6		X	X	X	X	X	X		
	1450	MW-3		6	X	X	X		X				
	1300	MW-4		6	X	X	X			⊗		Run Diss Pb	
	1100	MW-5		5	X	X	X					4 of 2 Highest Benzene	

For Laboratory Use

Lab Job No. 1004008
Shipped Via Client
Air Bill No. ____

Temperature On Receipt ____ °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
Company: ECN	4/1/10	1635	Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Date: 4/1/10 Time: 16:35

Copies: White-Original Yellow-Project File Pink-Customer Copy

TABLE 1
Groundwater Analytical Results - TPH-Dx, TPH-G, VOCs, and Dissolved Lead
1705 Lancaster Drive NE
Salem, Oregon
ECN Project No. 07-303

Well I.D.	Date of Sampling	Casing Elevation (Feet amsl)	Depth to Water (Feet)	Groundwater Elevation (Feet amsl)	Change in Elevation (Feet)	TPH-Dx [1]		TPH-G [2]	B [3]	T [3]	E [3]	X [3]	1,2,4-TMB [3]	EDB [3]	EDC [3]	1,3,5-TMB [3]	IPB [3]	MTBE [3]	NPB [3]	Naph-thalene [3]	Other VOCs [3]	Dissolved Cd [4]	Dissolved Cr [4]	Dissolved Lead [4]	LAB
						Diesel	Lube Oil																		
MW-1	8/10/2007	99.66	10.54	89.12	---	434	ND<478	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	3/20/2008	99.66	8.97	90.69	1.57	455	ND<529	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/29/2008	99.66	10.62	89.04	-1.65	800	ND<480	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	3/27/2009	99.66	6.68	92.98	3.94	350	632	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	6/30/2009	99.66	8.57	91.09	-1.89	283	ND<510	ND<100	ND1.00	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/29/2009	99.66	10.99	88.67	-2.42	643	694	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	12/26/2009	99.66	6.09	93.57	4.9	417	783	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	3/31/2010	99.66	5.38	94.28	0.71	212	255	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	6/30/2010	99.66	8.93	90.73	-3.55	380	350	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/29/2010	99.66	9.40	90.26	-0.47	355	ND<190	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	---	---	---	SA
MW-2	8/10/2007	100.00	9.44	90.56	---	1,880	ND<479	2,390	159	1.89	14.3	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	58.8	ND<1.00	134	1.80	CE 1.08 NBB 13.4 SBB 8.22	ND<0.1	ND<1.0	0.83	SA
	3/20/2008	100.00	7.68	92.32	1.76	3,220	1230	ND<100	310	1.64	12.5	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	49.7	ND<1.00	127	ND<1.00	NBB 11.9 SBB 7.03	---	---	ND<0.10	SA.
	9/29/2008	100.00	10.74	89.26	-3.06	2,820	890	26,500	290	1.16	6.96	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	35.7	ND<1.00	97.4	4.52	NBB 9.89 SBB 5.84	ND<0.10	ND<1.0	ND<0.10	SA
	3/27/2009	100.00	5.85	94.15	4.89	7,820	1110	3,580	162	1.68	9.38	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	39.3	ND<1.00	104	ND<1.00	NBB 8.99 SBB 5.08	---	---	ND<0.10	SA
	6/30/2009	100.00	7.34	92.66	-1.49	4,260	492	ND<100	164	1.8	11.7	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	50.5	ND<1.00	143	ND<1.00	NBB 10.8 SBB 7.44	ND<0.10	ND<1.0	ND<0.10	SA
	9/29/2009	100.00	11.08	88.92	-3.74	2,330	147	2,950	277	1.49	8.39	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	42.8	ND<1.00	151	37.10	NBB 11.6 SBB 6.93	ND<0.10	ND<1.0	0.2	SA
	12/26/2009	100.00	5.82	94.18	5.26	5,570	2000	1,660	137	ND<1.00	3.23	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	21.7	ND<1.00	66.3	ND<1.00	NBB 5.22 SBB 3.45	ND<0.10	ND<1.0	ND<0.10	SA
	3/31/2010	100.00	4.74	95.26	1.08	4,510	819	1,810	168	1.29	6.63	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	28.3	ND<1.00	91.7	5.86	NBB 4.40 SBB 2.78	ND<0.10	ND<1.0	ND<0.10	SA
	6/30/2010	100.00	6.67	93.33	-1.93	3,750	723	2,700	239	1.19	6.70	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	36.2	ND<1.00	107	2.79	NBB 6.29 SBB 3.52	ND<0.10	ND<1.0	ND<0.10	SA
	9/29/2010	100.00	9.49	90.51	-2.82	2,990	339	1,700	213	1.49	7.51	2.30	ND<1.00	ND<1.00	ND<1.00	ND<1.00	47.2	ND<1.00	137	3.64	---	ND<0.10	ND<1.0	0.12	SA
MW-3	8/10/2007	99.84	10.55	89.29	---	337	ND<478	336	0.420	ND<1.00	10.1	6.30	10.9	ND<1.00	ND<1.00	1.90	1.36	ND<1.00	3.27	1.78	---	---	---	---	SA
	3/20/2008	98.53	7.41	91.12	1.83	1420	862	ND<100	4.240	ND<1.00	52.6	16.90	12.4	ND<1.00	ND<1.00	3.62	6.54	ND<1.00	16.1	19.5	NBB 2.23 SBB 3.69	---	---		SA
	9/29/2008	98.53	9.19	89.34	-1.78	1610	603	ND<100	0.360	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.41	---	---	---	---	SA
	3/27/2009	98.53	5.06	93.47	4.13	600	664	ND<100	1.300	ND<1.00	3.35	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
	6/30/2009	98.53	6.92	91.61	-1.86	660	ND	ND<100	2.990	ND<1.00	10.5	ND<3.00	1.34	ND<1.00	ND<1.00	ND<1.00	1.84	ND<1.00	3.5	1.31	SBB 1.73	---	---	ND<0.10	SA
	9/29/2009	98.53	9.6	88.93	-2.68	567	528	1050	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.53	SBB 1.08	---	---	---	SA
	12/26/2009	98.53	4.51	94.02	5.09	333	749	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
	3/31/2010	98.53	3.86	94.67	0.65	171	274	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.22	ND<1.00	ND<1.00	1.36	---	---	---	---	SA
	6/30/2010	98.53	6.39	92.14	-2.53	562	412	109	0.990	ND<1.00	2.56	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.05	ND<1.00	---	---	---	ND<0.10	SA
	9/29/2010	98.53	7.94	90.59	-1.55	2,310	ND<194	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
Risk-Based Concentrations [5]																									
- Volatilization to Outdoor Air (Occupational)						>S	NE	>S	14,000	>S	41,000	>S	>S	960	9,500	>S	>S	1,100,000	NE	16,000	NE	NV	NV	NV	
- Vapor Intrusion into Buildings (Occupational)						>S	NE	>S	2,800	>S	7,400	>S	>S	690	3,800	41,000	>S	590,000	NE	10,000	NE	NV	NV	NV	
- Groundwater in an Excavation						>S	NE	13,000	1,700	210,000	4,400	23,000	1,700	28	630	1,400	>S	62,000	NE	500	NE	57,000	>S	>S	

(Construction and Excavation Worker)

TABLE 1 - Continued
Groundwater Analytical Results - TPH-Dx, TPH-G, VOCs, and Dissolved Lead
1705 Lancaster Drive NE
Salem, Oregon
ECN Project No. 07-303

Well I.D.	Date of Sampling	Casing Elevation (Feet amsl)	Depth to Water (Feet)	Groundwater Elevation (Feet amsl)	Change in Elevation (Feet)	TPH-Dx [1]		TPH-G [2]	B [3]	T [3]	E [3]	X [3]	1,2,4-TMB [3]	EDB [3]	EDC [3]	1,3,5-TMB [3]	IPB [3]	MTBE [3]	NPB [3]	Naph-thalene [3]	Other VOCs [3]	Dissolved Cd [4]	Dissolved Cr [4]	Dissolved Lead [4]	LAB
						Diesel	Lube Oil																		
MW-4	8/10/2007	99.82	10.83	88.99	---	534	ND<490	2,320	137	3.15	88.3	21.50	3.94	ND<1.00	ND<1.00	2.14	19.1	ND<1.00	66.2	55.6	IPT 1.17 NBB 3.65 SBB 3.31	ND<0.1	ND<1.0	0.67	SA
	3/20/2008	99.82	9.45	90.37	1.38	388	ND<485	ND<100	62.3	ND<1.00	35.0	ND<3.00	1.36	ND<1.00	ND<1.00	ND<1.00	3.63	ND<1.00	8.47	14.8	---	---	---	0.18	SA
	9/29/2008	99.82	10.96	88.86	-1.51	812	ND<491	ND<100	248	1.88	201.0	ND<3.00	2.07	ND<1.00	ND<1.00	ND<1.00	18.2	ND<1.00	42	89.6	---	---	----	1.2	SA
	3/27/2009	99.82	7.29	92.53	3.67	428	ND<481	522	39.7	ND<1.00	3.6	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.66	ND<1.00	2.56	ND<1.00	---	---	---	ND<0.10	SA
	6/30/2009	99.82	9.11	90.71	-1.82	ND<245	ND<489	ND<100	15.5	ND<1.00	1.0	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	----	---	ND<0.10	SA
	9/30/2009	99.82	11.38	88.44	-2.27	449	ND<478	2,470	85.7	1.2	204.0	ND<3.00	ND<1.00	ND<1.00	ND<1.00	1.35	25.4	ND<1.00	41.6	105	---	---	---	0.33	SA
	12/26/2009	99.82	6.89	92.93	4.49	ND<239	499	111	5.33	ND<1.00	1.6	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.32	---	---	---	2.0	SA
	3/31/2010	99.82	5.97	93.85	0.92	118	218	ND<100	7.23	ND<1.00	1.6	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.31	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
	6/30/2010	99.82											Well Inaccessible												
	9/29/2010	99.82	9.49	90.33	---	133	ND<191	724	71.5	1.28	37.1	1.57	ND<1.00	ND<1.00	ND<1.00	ND<1.00	9.77	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
MW-5	8/10/2007	99.66	10.88	88.78	---	247	ND<478	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.26	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	3/20/2008	99.66	9.52	90.14	1.36	ND<239	ND<477	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	9/29/2008	99.66	10.87	88.79	-1.35	292	ND<479	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	3/27/2009	99.66	7.13	92.53	3.74	ND<239	ND<478	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	6/30/2009	99.66	9.15	90.51	-2.02	ND<255	ND<509	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/30/2009	99.66	11.27	88.39	-2.12	ND<239	ND<478	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	12/26/2009	99.66	6.77	92.89	4.5	ND<239	ND<479	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	3/31/2010	99.66	5.79	93.87	0.98	ND<77.5	ND<194	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	6/30/2010	99.66	8.53	91.13	-2.74	ND<815	209	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	9/29/2010	99.66	9.72	89.94	-1.19	ND<76.4	ND<191	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	---	---	---	SA
Risk-Based Concentrations [5]																									
- Volatilization to Outdoor Air (Occupational)						>S	NE	>S	14,000	>S	41,000	>S	>S	960	9,500	>S	>S	1,100,000	NE	16,000	NE	NV	NV	NV	
- Vapor Intrusion into Buildings (Occupational)						>S	NE	>S	2,800	>S	7,400	>S	>S	690	3,800	41,000	>S	590,000	NE		NE	NV	NV	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)						>S	NE	13,000	1,700	210,000	4,400	23,000	1,700	28	630	1,400	>S	62,000	NE	500	NE	57,000	>S	>S	

ABBREVIATIONS:
B: Benzene
T: Toluene
E: Ethylbenzene
X: Total Xylenes
TMB: Trimethylbenzene
EDB: Ethylene Dibromide
EDC: Ethylene Dichloride
IPB: Isopropylbenzene
MTBE: Metyl tertiary-butyl ether
NPB: n-Propylbenzene
>S: The groundwater RBC exceeds the solubility limit.

NBB: n-Butylbenzene
SBB: sec- Butylbenzene
CE: Chloroethane
IPT: Isopropyltoluene
Cd: Cadmium
Cr: Chromium
ND: Not detected at or above the indicated laboratory reporting limit
NE: Not established by DEQ
NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations
>S: The groundwater RBC exceeds the solubility limit.

Results are in micrograms per liter (µg/L)
(1) Nortwest Method NWTPH-Dx
(2) Northwest Method NWTPH-Gx
(3) EPA Method 8021B 0r 8260B
(4) EPA Method 6011
(5) Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs)

TABLE 2
Groundwater Analytical Results (PAHs)
1705 Lancaster Drive NE
Salem, Oregon
ECN Project No. 07-303

Polynuclear Aromatic Hydrocarbons (µg/L) [1]		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	LAB
Sample Identification	Sample Date																	
MW-1	9/29/2008	0.11	ND<0.0500	0.09	0.06	0.09	0.07	0.18	0.100	0.06	0.16	0.2	0.15	0.16	ND<0.050	0.4	0.14	SA
	3/27/2009	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	0.0854	ND<0.0474	ND<0.0474	SA
	6/30/2009	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	SA
	9/29/2009	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	ND<0.0516	SA
	12/26/2009	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	SA
MW-2	8/10/2007	1.35	0.191	0.153	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	3.04	ND<0.0478	0.574	1.00	0.0478	SA
	9/29/2009	5.89	ND<0.0479	1.91	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	1.09	12.2	ND<0.0479	20.9	25.8	0.892	SA
	3/27/2009	1.34	0.317	0.231	ND<0.0480	ND<0.0480	ND<0.0480	0.048	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	2.86	ND<0.0480	0.768	2.2	0.106	SA
	6/30/2009	2.27	0.546	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	4.97	ND<0.0515	1.23	4.22	0.0619	SA
	9/29/2009	167	84.5	112	ND<6.04	ND<6.04	ND<6.04	ND<6.04	ND<6.04	ND<6.04	ND<6.04	ND<6.04	466	ND<6.04	ND<6.04	710	43.5	SA
	3/31/2010	2.04	0.508	0.171	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.0577	4.49	ND<0.0500	1.31	3.22	0.127	SA
	6/30/2010	1.95	0.369	0.123	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	3.64	ND<0.0473	1.16	3.24	0.0851	SA
	9/29/2010	1.88	0.383	0.192	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	4.08	ND<0.0479	0.795	2.89	0.0862	SA
MW-3	3/20/2008	0.252	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	0.591	ND<0.0547	3.29	0.339	ND<0.0547	SA
	9/29/2008	0.09	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.14	0.15	ND<0.0500	ND<0.0500	0.28	0.14	SA
	3/27/2009	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	0.0473	ND<0.0473	0.0947	ND<0.0473	ND<0.0473	SA
	6/30/2009	ND<0.0509	ND<0.0509	ND<0.0509	0.0713	0.0509	ND<0.0509	0.0713	ND<0.0509	0.0713	**0.611**	ND<0.0509	0.0713	0.0611	0.0815	0.0815	ND<0.0509	SA
	9/29/2009	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	0.0674	ND<0.0482	SA
	12/26/2009	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	SA
	3/31/2010	0.217	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.0202	0.259	ND<0.0500	1.42	0.65	0.113	SA
	6/30/2010	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	0.0920	ND<0.0511	ND<0.0511	ND<0.0511	ND<0.0511	SA
	9/29/2010	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	0.0858	0.0763	ND<0.0477	SA
MW-4	8/10/2007	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	17.8	ND<0.0489	ND<0.0489	SA
	9/29/2008	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.11	0.08	ND<0.0500	45	0.23	0.07	SA
	3/27/2009	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	0.671	ND<0.0486	ND<0.0486	SA
Risk-Based Concentrations [2]																		
- Volatilization to Outdoor Air (Occupational)		>S	NE	>S	NV	NV	NV	NE	NV	NV	NV	NV	>S	NV	16,000	NE	NV	
- Vapor Intrusion into Buildings (Occupational)		>S	NE	>S	NV	NV	NV	NE	NV	NV	NV	NV	>S	NV	10,000	NE	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)		>S	NE	>S	9.1	0.53	>S	NE	>S	>S	0.21	>S	>S	>S	500	NE	>S	

Abbreviations:

ND not detected at or above the indicated laboratory reporting limit
SA Specialty Analytical
µg/L Micrograms per Liter
NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations
NE: A Risk-Based Concentration has not been determined for this constituent
>S: The groundwater RBC exceeds the solubility limit.

[1] DEQ Method 8270SIM
[2] Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs) (DEQ, 2009).

Kris Byrd

From: Kathy Metzger [kmetzger@cascadedrilling.com]
Sent: Wednesday, January 26, 2011 2:04 PM
To: Kris Byrd
Cc: Darryl Metzger; Ryan Galbreth
Subject: Cascade Drilling, L.P. - Variance Request - 1705 Lancaster Dr. NE Salem (5215)
Attachments: 1stQ2010lab.pdf; 2ndQ2010lab.pdf; 3rdQ2010lab.pdf; MW-1(MW-5).pdf; MW-2(MW-4).pdf; MW-5(MW-3).pdf; Powell-SalemQ3-10.xls; Salem Sitepaln.pdf; 5215 Var Request ABD CIP 1-26-2011.pdf

Greetings,

Please see attached.

Thank you,

Kathy Metzger
Administration
Cascade Drilling, L.P.
13600 SE Ambler Rd.
Clackamas, OR 97015
Office: (503)775-4118
Fax: (503)775-4099

From: Ryan Galbreth [mailto:rgalbreth@cascadedrilling.com]
Sent: Wednesday, January 26, 2011 1:28 PM
To: Kathy Metzger
Subject: FW: Salem Project

Kathy,

I will bring the paperwork over in a minute.

Ryan

From: John Day [mailto:jday@dayenv.com]
Sent: Wednesday, January 26, 2011 12:19 PM
To: rgalbreth@cascadedrilling.com
Subject: Salem Project

Ryan, per our discussion, attached is the information for the three monitoring wells we would like to decommission at the Powell Distributing site located at 1705 Lancaster Drive NE, Salem, Oregon. The decommissioning/replacement of the monitoring wells is based on the City of Salem's plans to widen both Lancaster Drive NE and Market Street NE.

There is a discrepancy between Cascade's well logs and Environmental Compliance Northwest's (ECN's) labeling of the monitoring wells. The differences are as follow:

Cascade's well ID	ECN's well ID
MW-1	MW-5
MW-2	MW-4
MW-5	MW-3

ECN's well ID numbers correlate to the laboratory reports, analytical table, and ECN's Site Plan, which are attached. Cascade's well log information is also attached.

Please call/email with any questions or if additional information is needed.

Thanks,
John

John M. Day, RG, LHg
Principal Geologist/President
Environmental Compliance Northwest, Inc.
(503) 372-9760 - Phone
(503) 213-9980 - Fax

1012357 ✓ (MW2 - MW4) ([redacted]) Reg
([redacted]) (Diesel Reg 9/29/10) (gasoline 9/29/10)
(Benzene EPA 9/29/10) (naphthalene Reg 9/29/10)

1012358 ✓ (MW5 - MW3) (Diesel Reg [redacted]) 9/29/10
([redacted]) ([redacted])

1012359 ✓ (MW1 - MW5)

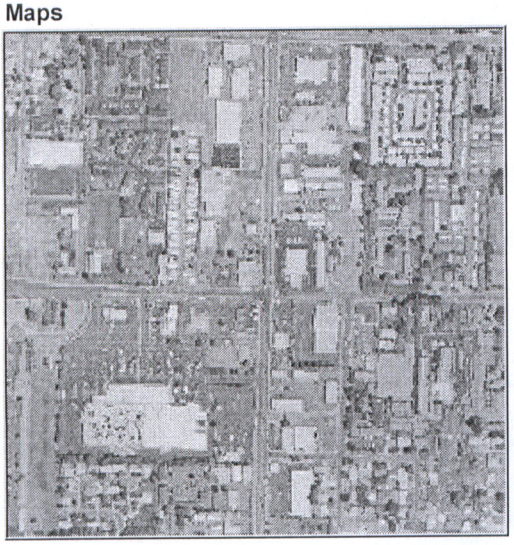
Oregon DEQ Facility Profiler 2.0

[Help] [Close Window]

Facility Summary Report

Return to Site Listing Print Report

Maps



Facility / Site Information for Location 23933

Facility/Site Name:	CTW, INC DBA CASCADE TIRE WHOLESALERS	**Latitude:**	44° 57' 1.18"
		Longitude:	-122° 59' 2.09"
Address:	1705 LANCASTER DR NE	**Location Accuracy:**	MEDIUM
City State Zip:	SALEM OR 97303	**Last Updated:**	8/27/2003 4:04:43 PM

Aliases

CASCADE TIRE WHOLESALE CO	LUST

Geographic Features

Township:	T7S-R2W-S0	**Congress Dist:**	5	**Forest Type:**	N/A
County:	MARION	**OR Senate Dist:**	11	**Vegetation:**	Urban and industrial
Watershed:	MIDDLE WILLAMETTE	**OR House Dist:**	22	**Agricultural Land:**	PREDOM IRR
Drinking Water Source:		N/A			

Oregon DEQ Program Information

Leaking Underground Storage Tanks (LUST)

Log Number	Received	Cleanup Initiated	Cleanup Complete	Type	Heating Oil Tank	UST Facility ID	Status	Detail Information[1]
24-88-4082		11/17/1996		REGULATED		8752	CLEANUP_STARTED	LUST Site Report

[1] Linked reports may be unavailable from 9:00pm to 7:00am PST due to system maintenance.

[2] DEQ does not maintain air discharge permit information for Lane County.

More Information on this location

Oregon DEQ Neighborhood Info (by region/county)
See wells in the same Township Range Section from the Oregon Water Resources Department Well logs Application
See county's scanned assessor maps through ORMAP

[DEQ's Privacy Notice] [Contact DEQ] [Application Feedback]

Leaking Underground Storage Tanks (LUST) Site Information

Leaking Underground Storage Tank (LUST) Site Information

Log Nbr: **24-88-4082**
Site Name: CASCADE TIRE WHOLESALE CO
Address: 1705 LANCASTER DRIVE, NE
City: SALEM
Site Type: Risk Based Standards
Heating Oil Tank (HOT):

Basic Incident Information

Zip Code: 97303
File Status:
Regulated Tank: YES

Status: **ACTIVE**
Received Date: 8/31/1988
UST Facility Id: 8752
County: MARION

Assessment Information 24-88-4082

Cause: UNKNOWN
Source: Not Reported
Discovery: OTHER

Media Effected
>Soil >GroundWater

Contaminants Released
>LeadedGas >Deisel >Waste Oil

Free Product Removed:
Delineate Groundwater:
Delineate Soil:

Free Vapor Removed:
Groundwater Delineated: YES
Soil Delineated: YES
Compliance Monitoring:

CAP Requested:
CAP Submitted:
CAP Approved:

Management Information 24-88-4082

Release Stopped Date: 8/31/1988
Cleanup Start Date: 11/17/1996
Cleanup End Date:

Work Reported Information 24-88-4082

Work Reported	Reported By	Reported Date
Groundwater Investigation	Environmental Compliance Northwest	5/21/2010
Work Plan	Kleinfelder, Inc.	10/18/2007
Tank Decommissioning	AGRA EARTH & ENVIRONMENTAL	4/11/1997

This information may not reflect current status of site.
For further detail, refer to the DEQ Regional Office file.

Oregon Department of Environmental Quality
CASCADE TIRE WHOLESALE CO

Print

Summary Information

General Site Information

24-88-4082

Site Name:	CASCADE TIRE WHOLESALE CO	**Basic Incident Information**	
Address:	1705 LANCASTER DRIVE, NE	**Received Date:**	08/31/1988
	SALEM, 97303	**Status:**	ACTIVE
County:	MARION	**Tank Type:**	Regulated Tank
Site Type:	Risk Based Standards	**UST Facility Id:**	8752
Project Manager	Herrington Rose	Phone Number	(503) 378-5074

Assessment Information

Cause of Release:	UNKNOWN	**Source of Release:**	NOT REPORTED	**Discovery Method:**	OTHER

Media Effected	**Contaminants Released**
>Soil >GroundWater	>LeadedGas >Diesel >Waste Oil

Soil Delineated YES **Groundwater Delineated** YES

Management Information

Release Stopped Date: 08/31/1988 **Cleanup Start Date:** 11/17/1996 **Cleanup End Date:**

Work Reported Information

Work Reported	Reported Date
Groundwater Investigation	5/21/2010
Work Plan	10/18/2007
Tank Decommissioning	4/11/1997

Site Documents

Click the link to view the document.

File Name	Category	File Size MB	Upload Date
Cascade Tire Wholesale ECN 5-21-2010 Report.pdf	Miscellaneous	1.1116	8/17/2010
Cascade Tire 2003 Diagram-Data.pdf	Site Diagrams	0.3489	3/2/2010
Cascade Tire Wholesale 5-21-2010 Site Diagrams.pdf	Site Diagrams	0.2571	8/17/2010
Cascade Tire Wholesale 5-21-2010 Data Tables.pdf	Site Diagrams	0.5154	8/17/2010
Cascade Tire Wholesale 5-21-2010 GW Contour Diagram.pdf	Site Diagrams	0.1027	8/17/2010

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
phone: 503-229-5696 or toll free in Oregon 800-425-4011
TTY: 503-229-6993 FAX: 503-229-6124

The Oregon Department of Environmental Quality is a regulatory agency authorized to protect Oregon's environment b the State of Oregon and the Environmental Protection Agency.

DEQ Web site privacy notice

Oregon Department of Environmental Quality
CASCADE TIRE WHOLESALE CO

Print

Summary Information

General Site Information

24-88-4082

Site Name:	CASCADE TIRE WHOLESALE CO	**Basic Incident Information**	
Address:	1705 LANCASTER DRIVE, NE	**Received Date:**	08/31/1988
	SALEM, 97303	**Status:**	ACTIVE
County:	MARION	**Tank Type:**	Regulated Tank
Site Type:	Risk Based Standards	**UST Facility Id:**	8752
Project Manager	Herrington Rose	Phone Number	(503) 378-5074

Assessment Information

Cause of Release:	UNKNOWN	**Source of Release:**	NOT REPORTED	**Discovery Method:**	OTHER
Media Effected		**Contaminants Released**			
>Soil >GroundWater		>LeadedGas >Diesel >Waste Oil			

Soil Delineated YES **Groundwater Delineated** YES

Management Information

Release Stopped Date: 08/31/1988 **Cleanup Start Date:** 11/17/1996 **Cleanup End Date:**

Work Reported Information

Work Reported	Reported Date
Groundwater Investigation	5/21/2010
Work Plan	10/18/2007
Tank Decommissioning	4/11/1997

Site Documents

Click the link to view the document.

File Name	Category	File Size MB	Upload Date
Cascade Tire Wholesale ECN 5-21-2010 Report.pdf	Miscellaneous	1.1116	8/17/2010
Cascade Tire 2003 Diagram-Data.pdf	Site Diagrams	0.3489	3/2/2010
Cascade Tire Wholesale 5-21-2010 Site Diagrams.pdf	Site Diagrams	0.2571	8/17/2010
Cascade Tire Wholesale 5-21-2010 Data Tables.pdf	Site Diagrams	0.5154	8/17/2010
Cascade Tire Wholesale 5-21-2010 GW Contour Diagram.pdf	Site Diagrams	0.1027	8/17/2010

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
phone: 503-229-5696 or toll free in Oregon 800-425-4011
TTY: 503-229-6993 FAX: 503-229-6124

The Oregon Department of Environmental Quality is a regulatory agency authorized to protect Oregon's environment b the State of Oregon and the Environmental Protection Agency.

DEQ Web site privacy notice

ENVIRONMENTAL COMPLIANCE NORTHWEST
PO BOX 230163
PORTLAND, OR 97281
(503) 372-9760 Phone
(503) 213-9980 Fax

TRANSMITTAL

Date: May 21, 2010
File: 07-303

TO:

Mr. Herrington Rose
Oregon DEQ, Western Region
750 Front Street NE
Salem, OR 97301

Subject

**Additional Site Assessment and
Monitoring Well Installation Report
Powell Distributing Company
1705 Lancaster Drive NE
Salem, Oregon**

DEQ LUST File No.: 24-88-4082

We are sending the following:

One copy of the above-referenced report. Also enclosed is a summary of the historic groundwater monitoring results through first quarter 2010.

Remarks:

If you have any questions, please contact our office at (503) 372-9760.
Thank you.

By:

John M. Day, R.G.
Principal Geologist
President

\PROJECTS\POWELL\07303\SA&MWINSTALL.DOC

ADDITIONAL SITE ASSESSMENT AND MONITORING WELL INSTALLATION REPORT

POWELL DISTRIBUTING COMPANY
1705 LANCASTER DRIVE NE
SALEM, OREGON
DEQ FILE NO.: 24-88-4082

ECN PROJECT NO. 07-303

May 21, 2010

\PROJECTS\POWELL\07303\SA&MWINSTALL.DOC

ENVIRONMENTAL COMPLIANCE NORTHWEST

PO BOX 230163
PORTLAND, OR 97281

(503) 372-9760 Phone
(503) 213-9980 Fax

May 21, 2010
ECN Project No. 07-303

Mr. Lee Powell, Jr.
Powell Distributing Company
9125 North Burrage
Portland, Oregon 97217

SUBJECT: Additional Site Assessment and Monitoring Well Installation Report
Powell Distributing Company
1705 Lancaster Drive NE
Salem, Oregon
DEQ LUST File No.: 24-88-4082

Dear Mr. Powell:

Environmental Compliance Northwest, Inc., (ECN) is pleased to submit this Additional Site Assessment and Monitoring Well Installation Report for the above referenced facility. We hope this report meets your needs at this time. If you should require additional information, please contact us at 503-372-9760.

Sincerely,

ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.

John M. Day, RG
Principal Geologist
President

cc: Herrington Rose-DEQ, Western Region-Salem

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SITE DESCRIPTION 1

3.0 BACKGROUND 1

4.0 FIELD ACTIVITIES 2

4.1 Soil and Groundwater Assessment 2
4.2 Monitoring Well Installation and Development 3
5.1 Soil analytical Test Methods 3
5.2 Groundwater Analytical Test Methods 4

6.0 FINDINGS 4

6.1 Physical Results-Additional Site Assessment 4
6.2 Soil Analytical Results 4
6.3 Groundwater Monitoring and Sampling Results 6

7.0 REGULATORY CLEANUP LEVELS 7

8.0 SUMMARY AND CONCLUSIONS 8

9.0 REFERENCES 9

10.0 LIMITATIONS 9

TABLES

1. Soil Analytical Results-TPH-Dx, TPH-Gx, VOCs, and Metals
2. Soil Analytical Results-PAHs
3. Groundwater Analytical Results – TPH-Dx, TPH-Gx, VOCs, and Metals
4. Groundwater Analytical Results – PAHs

FIGURES

1. Vicinity Map
2. Site Plan
3. Soil Analytical Results Map
4. Groundwater Contour Map
4. Groundwater Analytical Results Map

APPENDICES

A. Boring Logs and Well Construction Details
B. Laboratory Reports and Chain of Custody

1.0 INTRODUCTION

This report describes the additional site assessment and monitoring well installation activities conducted in July and August 2007 at the Powell Distributing Company (PDC) site located at 1705 Lancaster Drive NE in Salem, Oregon (Figure 1). The site activities were performed to further define the extent of petroleum hydrocarbon impacts in soil and groundwater beneath the site.

2.0 SITE DESCRIPTION

The site is located at the northwest corner of Lancaster Drive NE and Market Street NE in Salem, Oregon. One building is present at the site and is currently occupied by commercial businesses. The site is relatively flat and paved with concrete. The southeast and southwest portions of the site are landscaped. The locations of pertinent site features are shown on Figure 2. The site is located in an area of commercial development.

3.0 BACKGROUND

The site was formerly a bulk petroleum storage and service station facility. A total of five underground storage tanks (USTs) were decommissioned by in-place abandonment at the site during the 1980s. The estimated capacities the USTs follow: one 10,000-gallon, two 6,000-gallon, and two 4,000-gallon tanks. The contents of the USTs were gasoline, diesel, and stove oil. The approximate locations of the decommissioned USTs and associated fuel dispenser island are shown on Figure 2.

In August 1988, apparent petroleum hydrocarbon-impacted soil was encountered while erecting a sign on the north side of the property (see Figure 2). A City of Salem inspector observed a diesel odor in the sign excavation. Based on information contained in the DEQ file, soil remediation was not conducted.

In November 1996, Goodyear Tire and Rubber Company (site tenant) decommissioned an approximate 550-gallon used oil UST by removal near the northeast corner of the existing site building (Figure 2). Petroleum hydrocarbon-impacted soil was observed during decommissioning activities. Analytical testing confirmed the impact. Relatively high concentrations of diesel and heavy oil-range hydrocarbons were detected in a soil sample collected the north end of the former UST, however, used oil-related constituent analyses (volatile organic compounds (VOCs), toxic characteristic leaching procedure (TCLP) cadmium, chromium, and lead) were performed on the less contaminated soil sample collected from the beneath the south end of the former UST, as well as the contaminated soil stockpile. VOCs and

TCLP cadmium, chromium, and lead were either not detected at or above the laboratory reporting limits or were below the Oregon Soil Cleanup (SoClean) levels.

Kleinfelder conducted additional site investigation activities at the site in January 2003. A total of eight direct-push borings were completed, and soil and groundwater samples were collected from each boring. Based on field indications and laboratory results, gasoline- and diesel-range hydrocarbons were encountered in samples collected in the northern portion of the site. Gasoline-range hydrocarbons were not detected in soil samples collected in the southern portion of the site. A shallow, water-bearing zone was encountered at approximately 15 feet bgs. Grab groundwater samples were analyzed from six of the borings. Elevated VOC concentrations (benzene ranged from 48 to 1,720 micrograms per liter (ug/L)) were detected. Relatively low PAH concentrations were also detected in the grab groundwater samples analyzed (Kleinfelder, 2003).

4.0 FIELD ACTIVITIES

The following sections describe the additional site assessment, groundwater monitoring, laboratory test methods, and findings.

4.1 SOIL AND GROUNDWATER ASSESSMENT

A total of five monitoring wells (MW-1 through MW-5) were installed on July 12 and 13, 2007. Monitoring well MW-1 is located adjacent to the east side of existing building. Monitoring well MW-2 is located is located near the northeast corner of the existing building, adjacent to a former used oil UST. Monitoring well MW-3 is located at northeast corner of the site, near the abandoned UST cavity. Monitoring wells MW-4 and MW-5 are located in the southern portion of the site, within the southeast and southwest landscaped areas. Figure 2 through 5 show the location of the monitoring wells.

The monitoring well borings were drilled by Cascade Drilling (Cascade), based in Portland, Oregon, using direct-push drilling technology. The well bores were drilled and sampled to a maximum depth of approximately 25 feet below the ground surface (bgs). Boring logs are presented in Appendix A.

Soil was sampled continuously and soil samples were collected at maximum intervals of 5 feet. Soil samples were examined for evidence of staining and/or hydrocarbon odor. Generally, the soil samples with the highest field-indications of impact were submitted for laboratory analysis. If indications of petroleum hydrocarbon-impact were not observed, the soil sample collected from the approximate soil/shallow water-bearing zone interface was submitted for laboratory

analysis. The samples were placed in an ice-chilled cooler and transported under chain-of-custody documentation to Specialty Analytical in Tualatin, Oregon.

4.2 MONITORING WELL INSTALLATION AND DEVELOPMENT

Monitoring wells MW-1 through MW-5 were installed on July 12 and 13, 2007, in accordance with the Oregon Water Resources Department (WRD) guidelines.

The monitoring well borings were completed to a maximum depth of approximately 25 feet bgs. All wells were constructed with factory-slotted, schedule 40 "pre-packed" polyvinyl chloride (PVC) well screen consisting of 0.010-inch 1-inch diameter slotted PVC casing from 5 feet to 20 feet (MW-1 through MW-3) and 5 feet to 25 feet (MW-4 and MW-5) bgs, with a 5 foot section of blank PVC casing extending to the ground surface. The annulus between the well casing and the well bore was filled with sand to approximately 1-foot above the screened interval. The remaining annulus was filled with a bentonite seal. The wells were completed flush at the ground surface with traffic-rated monuments. Well construction details are shown on the boring logs included in Appendix A.

Following installation, each well was developed using a peristaltic pump. The wells were purged until relatively sediment-free. The top of the well casings were surveyed relative to an arbitrary benchmark.

On August 10, 2007, water level measurements were recorded, and the presence of light non-aqueous phase liquid (LNAPL) was assessed in each well. LNAPL was not observed in any of the monitoring wells. The wells were then purged of groundwater to obtain water samples representative of the groundwater in the water-bearing zone. Purging was performed until a minimum of three well casing volumes were evacuated and/or the indicator parameters of pH, temperature, and specific conductivity stabilized. Groundwater samples were collected using a peristaltic pump, placed in an iced cooler, and transported to Specialty Analytical following chain-of-custody protocols.

5.0 ANALYTICAL TEST METHODS

The analytical test methods used for the additional site assessment and groundwater monitoring events are discussed below.

5.1 SOIL ANALYTICAL TEST METHODS

Select soil samples from each boring were analyzed for gasoline-range hydrocarbons (gasoline) by Northwest Method NWTPH-Gx, and diesel-range hydrocarbons (diesel) and lube oil-range petroleum hydrocarbons (lube oil) by Northwest Method NWTPH-Dx. Selected soil samples

were also analyzed for volatile organic hydrocarbons (VOCs) by EPA method 8260B and/or benzene, toluene, ethylene benzene (BTEX) by EPA Method 8021B. The soil samples collected from 2.5 feet bgs and 10 feet bgs in boring MW-2 (MW-2-2.5' and MW-2-10') were analyzed for cadmium (Cd), chromium (Cr), and lead (Pb) by EPA method 6010. In addition, soil sample MW-2-2.5' was analyzed for polynuclear aromatic hydrocarbons (PAHs) by DEQ Method 8270SIM. Soil analytical results are summarized in Tables 1 and 2.

5.2 GROUNDWATER ANALYTICAL TEST METHODS

Each groundwater sample collected during second quarter 2007 monitoring event was analyzed for DEQ risk-based decision making (RBDM) or total VOCS by EPA method 8260B; gasoline-range hydrocarbons by Northwest Method NWTPH-Gx; and diesel- and lube-oil range hydrocarbons by Northwest Method NWTPH-Dx. Groundwater samples collected from monitoring wells MW-2 and MW-4 were also analyzed for dissolved Cd, Cr, and Pb by EPA Method 6010. In addition, the groundwater samples collected from monitoring wells MW-2 and MW -4 were analyzed for PAHs by DEQ Method 8270SIM. Groundwater analytical results are shown in Tables 3 and 4.

6.0 FINDINGS

The findings of the additional soil assessment, monitoring well installation activities, and second quarter 2007 groundwater monitoring events are described in the following sections.

6.1 PHYSICAL RESULTS-ADDITIONAL SITE ASSESSMENT

Soil encountered during the July 2007 additional site assessment generally consisted of soft to medium firm silt to the maximum explored depth of 25 feet bgs, with increased very fine- to fine-grained sand content with depth. Silty sand was present in boring MW-2 below approximately 10.5 feet bgs. Soil encountered below approximately 10 to 13 feet bgs appeared to be very moist to saturated, indicating a potentially water-bearing zone. Boring logs with monitoring well construction details are presented in Appendix A.

6.2 SOIL ANALYTICAL RESULTS

The analytical findings of the additional site assessment activities are described below. The soil analytical results are summarized in Tables 1 and 2. A summary of the soil analytical results are also presented on Figure 3. The laboratory reports are provided in Appendix B.

Field Results

Field screening results (visual and olfactory) indicated that soil collected from well borings MW-2 through MW-4 may be impacted by petroleum hydrocarbons.

Laboratory Results

MW-1

MW-1-2.5': Diesel- and lube oil-range hydrocarbons, and VOCs were not detected at or above the laboratory reporting limits. Gasoline-range hydrocarbons (3.98 milligrams per kilogram [mg/kg]) were detected in the soil sample collected from 2.5 feet bgs.

MW-1-12': Diesel-, lube oil-, and gasoline-range hydrocarbons were not detected at or above the laboratory reporting limits in the soil sample collected from 12 feet bgs.

MW-2

MW-2-2.5': Diesel- and lube oil-range hydrocarbons (4,710 mg/kg and 362 mg/kg, respectively); gasoline-range hydrocarbons (1,460 mg/kg); ethylbenzene (0.202 mg/kg); isopropylbenzene (IPB) (2.070 mg/kg); n-propylbenzene (NPB) (7.520 mg/kg); naphthalene (0.577 mg/kg); n-butylbenzene (NBB) (3.570 mg/kg); sec-butylbenzene (SBB) (1.290 mg/kg); Cd (0.175 mg/kg); Cr (13.0 mg/kg); and Pb (19.8 mg/kg) were detected in the soil sample collected from 2.5 feet bgs. The following PAHs were also detected in soil sample MW-2-2.5': acenaphthene (1.160 mg/kg); acenaphthylene (0.330 mg/kg); anthracene (0.680 mg/kg); benzo(a)pyrene (0.00933 mg/kg); benzo(b)fluoranthene (0.0100 mg/kg); benzo(g,h,i)perylene (0.0373 mg/kg); chrysene (0.0333 mg/kg); fluoranthene (0.0867 mg/kg); indeno(1,2,3-cd)pyrene (0.00933 mg/kg); naphthalene (0.667 mg/kg); phenanthrene (5.030 mg/kg); and pyrene (0.330 mg/kg). The difference in naphthalene concentrations is due to separate test methods used for VOC and PAH analyses.

MW-2-10': Diesel-range hydrocarbons (5,020 mg/kg); gasoline-range hydrocarbons (997 mg/kg); benzene (0.0110 mg/kg); ethylbenzene (0.0226 mg/kg); IPB (0.640 mg/kg); NPB (4.340 mg/kg); acetone (0.132 mg/kg); NBB (0.558 mg/kg); SBB (0.103 mg/kg); Cd (0.167 mg/kg); Cr (16.8 mg/kg); and Pb (7.83 mg/kg) were detected in the soil sample collected from 10 feet bgs.

MW-3

MW-3-2.5': Diesel-range hydrocarbons (1,920 mg/kg) and gasoline-range hydrocarbons (513 mg/kg) were detected in the soil sample collected from 2.5 feet bgs.

MW-3-12': Diesel-range hydrocarbons (115 mg/kg) and gasoline-range hydrocarbons (35.8 mg/kg) were detected in the soil sample collected from 12 feet bgs. None of the BTEX constituents were detected at or above the laboratory reporting limits.

MW-4

MW-4-13': Gasoline-range hydrocarbons (6.97 mg/kg) were detected in the soil sample collected from 13 feet bgs. Diesel- and lube oil-range hydrocarbons, as well as BTEX constituents, were not detected at or above the laboratory reporting limits.

MW-4-18': Gasoline-range hydrocarbons (57.2 mg/kg); benzene (0.0143 mg/kg); ethylbenzene (0.0733 mg/kg); 1,2,4-trimethylbenzene (1,2,4-TMB) (0.0141 mg/kg); 1,3,5 TMB (0.0150 mg/kg); IPB (0.0206 mg/kg); NPB (0.0648 mg/kg); acetone (0.0648 mg/kg); and NBB (0.0223 mg/kg) were detected in the soil sample collected from 18 feet bgs. Diesel- and lube oil-range hydrocarbons were not detected at or above the laboratory reporting limits.

MW-5

MW-5-13': Diesel-, lube oil-, and gasoline-range hydrocarbons, as well as BTEX, were not detected at or above the laboratory reporting limits in the soil sample collected from 13 feet bgs.

6.3 GROUNDWATER MONITORING AND SAMPLING RESULTS

Following are the physical and chemical results for the second quarter 2007 groundwater monitoring and sampling activities at the site.

Physical

The depth to water in the monitoring wells, as measured on August 10, 2007, ranged from 9.44 to 10.88 feet below the top of well casings. The groundwater flow direction varied toward the southeast in the northern portion of the site and to the south in the southern portion. The generalized flow direction was interpreted to be to the south-southeast with an average hydraulic gradient of approximately 0.119 feet per foot. The groundwater elevation and flow direction data for the second quarter 2007 monitoring event are shown on Figure 4.

Chemical

MW-1: Diesel-range hydrocarbons (434 micrograms per liter [µg/L]) were detected. Lube oil- and gasoline-range hydrocarbons as well as VOCs were not detected at or above the corresponding laboratory reporting limits.

MW-2: Diesel-range hydrocarbons (1,880 µg/L); gasoline-range hydrocarbons (2,390 µg/L); benzene (190 µg/L); toluene (1.89 µg/L); ethylbenzene (14.3 µg/L); IPB (58.8 µg/L); NPB (134

µg/L); naphthalene (1.80 µg/L); chloroethane (1.08 µg/L); NBB (13.4 µg/L); SBB (8.22 µg/L); and dissolved lead (0.83 µg/L) were detected. The following PAHs were also detected: acenaphthene (1.35 µg/L); acenaphthalene (0.191 µg/L); anthracene (0.153 µg/L); fluorene (3.04 µg/L); naphthalene (0.574 µg/L); phenanthrene (1.00 µg/L); and pyrene (0.0478 µg/L).

MW-3: Diesel-range hydrocarbons (337 µg/L); gasoline-range hydrocarbons (336 µg/L); benzene (0.420 µg/L); ethylbenezene (10.1 µg/L); total xylenes (6.30 µg/L); 1,2,4-TMB (10.9 µg/L); 1,3,5-TMB (1.90 µg/L); IPB (1.36 µg/L); NPB (3.27 µg/L); and naphthalene (1.76 µg/L) were detected.

MW-4: Diesel-range hydrocarbons (534 µg/L); gasoline-range hydrocarbons (2,320 µg/L); benzene (137 µg/L); toluene (3.15 µg/L); ethylbenzene (88.3 µg/L); total xylenes (21.50 µg/L); 1,2,4-TMB (3.94 µg/L); 1,3,5-TMB (2.14 µg/L); IPB (19.1 µg/L); NPB (66.2 µg/L); naphthalene (55.6 µg/L); isopropyltoluene (1.17 µg/L); NBB (3.65 µg/L); SBB (3.31 µg/L); and dissolved lead (0.67 µg/L) were detected. The following PAH was also detected: naphthalene (17.8 µg/L).

MW-5: Diesel-range hydrocarbons (247 µg/L) were detected. Lube oil- and gasoline-range hydrocarbons, as wells as VOCs were not detected at or above the corresponding laboratory reporting limits.

7.0 REGULATORY CLEANUP LEVELS

This section describes applicable generic and site-specific soil and groundwater target cleanup levels for the subject site.

OREGON RISK-BASED DECISION MAKING LEVELS

In 1999, the Oregon DEQ issued the *Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites* guidance document (DEQ, 1999, updated in 2003). This guidance document listed Risk-Based Concentration (RBC) cleanup levels that are based on current and potential future land and water uses at a site. The RBC cleanup levels were most recently revised in September 2009 (DEQ, 2009).

A detailed assessment of potential exposure pathways has not yet been conducted for the site. Although a conceptual site model has not been completed, based on our current knowledge of site conditions, the potentially complete exposure pathways for soil are considered to be: 1) soil ingestion, dermal contact, and inhalation for an excavation worker and construction worker; 2) volatilization to outdoor air (occupational); and 3) vapor intrusion into buildings (occupational). Considering that petroleum hydrocarbon impact to the shallow water-bearing zone beneath the site has been documented in this report, the "Leaching to Groundwater" exposure pathway was not considered applicable.

The exposure pathways considered potentially complete for groundwater include: 1) volatilization to outdoor air (occupational); 2) vapor intrusion into buildings (occupational); and 3) groundwater in an excavation for a construction or excavation worker. A discussion of samples collected exceeding applicable potential exposure pathways follows:

Soil

Gasoline-range hydrocarbons exceeded the vapor intrusion into buildings (occupational) exposure pathway RBC (140 mg/kg) in three soil samples collected during site assessment activities (1,460 mg/kg [MW-2-2.5']; 997 mg/kg [MW-2-10']; and 513 mg/kg [MW-3-2.5']).

Groundwater

None of the groundwater samples collected from monitoring wells MW-1 through MW-5 exceeded any of the above-referenced RBC cleanup levels.

The RBC cleanup levels are listed in DEQ's "Risk-Based Concentrations for Individual Chemicals" (DEQ, 2009) and are summarized in Tables 1 through 4 of this report.

8.0 SUMMARY AND CONCLUSIONS

The site was formerly operated as a bulk petroleum storage and service station facility. Five USTs historically containing gasoline, diesel, and stove oil were decommissioned by in-place abandonment in the 1980s. In 1996, petroleum hydrocarbon-impacted soil was encountered during removal of a used oil UST near the northeast corner of the site building.

Site investigation activities conducted by Kleinfelder in 2003 indicated petroleum hydrocarbon impact to soil and a shallow water-bearing zone beneath the site. The site is currently occupied by commercial businesses.

ECN conducted site assessment activities in July and August 2007, consisting of drilling a total nine five soil borings and completing each as groundwater monitoring wells. Analytical results of the soil samples collected during the site assessment indicated that residual petroleum hydrocarbons were present. It appeared that the highest petroleum hydrocarbon concentrations in soil were near former used oil UST and in the northeast corner of the site.

Based on the analytical results of groundwater samples collected during the second quarter 2007 groundwater monitoring event, it appears that the shallow water-bearing zone beneath the northern and southeastern portions of the site contain elevated petroleum-hydrocarbon concentrations.

Based on a preliminary review of potential exposure pathway RBCs, it appears that a limited amount of soil beneath the site, in the vicinity of the former used oil UST and in the northeast

portion of the site, exceed the most conservative potentially-complete exposure pathway (vapor intrusion into buildings-occupational) for gasoline-range hydrocarbons. None of the groundwater samples collected exceeded the RBC cleanup levels for the potentially-complete exposure pathways applicable for the site.

Groundwater monitoring has been on-going since the initial second quarter 2007 monitoring event. Results of the groundwater sampling performed to date are currently being prepared. Additional investigation of soil and groundwater conditions may be warranted to assess the extent of subsurface petroleum hydrocarbon impact beyond the subject site.

9.0 REFERENCES

Kleinfelder, 2003. Work Plan, Additional Site Assessment and Monitoring Well Installation, Former Cascade Tire, 1705 Lancaster Drive NE, Salem, Oregon, DEQ File No. 24-88-4082. September 25.

Oregon Department of Environmental Quality, 1999 and 2003. Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites (OAR 340-122-0205 through 0360). September 29, 1999, updated September 22, 2003.

Oregon Department of Environmental Quality, 2009. www.deq.state.or.us/lq/rbdm.htm.

10.0 LIMITATIONS

Environmental Compliance Northwest, Inc., has performed the work described in this report in accordance with the generally accepted standard of care existing in the State of Oregon at the time of the assessment. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and historical conditions applicable to the study area. More extensive studies may be used to supplement the information presented in this report. Environmental Compliance Northwest, Inc., should be notified for additional consultation if Powell Distributing Company wishes to reduce uncertainties beyond the level associated with this assessment. Our assessment of the property also may change, as new data becomes available during additional site exploration, remediation, or development.

Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the report.

No warranty, express or implied is made.

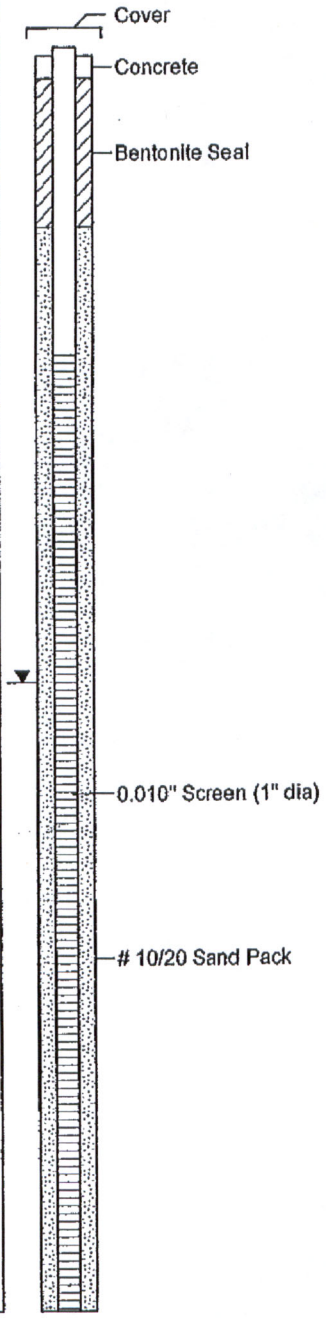
Environmental Compliance Northwest PO Box 230163 Portland, Oregon 97281	LOG OF BORING MW-1 (Page 1 of 1)

Powell Distributing Co. 1705 Lancaster Drive N.E. Salem, Oregon	Date Started	: 7/12/07	Company Rep.	:
	Date Completed	: 7/12/07	Northing Coord.	:
	Hole Diameter	: 3"	Easting Coord.	:
Project # 07-303	Drilling Method	: Direct-Push	Survey By	:
Additional Site Assessment	Sampling Method	: Macro-sampler	Logged By	: J. Day

Water Levels
▼ During Drilling
▽ After Completion

Depth in Feet	Blow Count	USCS	GRAPHIC	DESCRIPTION	Samples	REMARKS
0				Concrete		
				Asphalt		
		ML		Silt: Dark olive to grayish brown, soft to medium firm, clayey in places, indistinct odor.	1	
5				less clay below 7 feet		
10				Appears saturated below 10 feet	2	
15				Increasingly firm, occsionally grades to silty fine sand below 15 feet		
20				Boring terminated at 20 feet		

Well: MW-1
Elev.:



05-20-2010 C:\Users\John\Documents\Projects\Powell Dist\Salem\MW\Install\Boring Logs\MW-1.bor

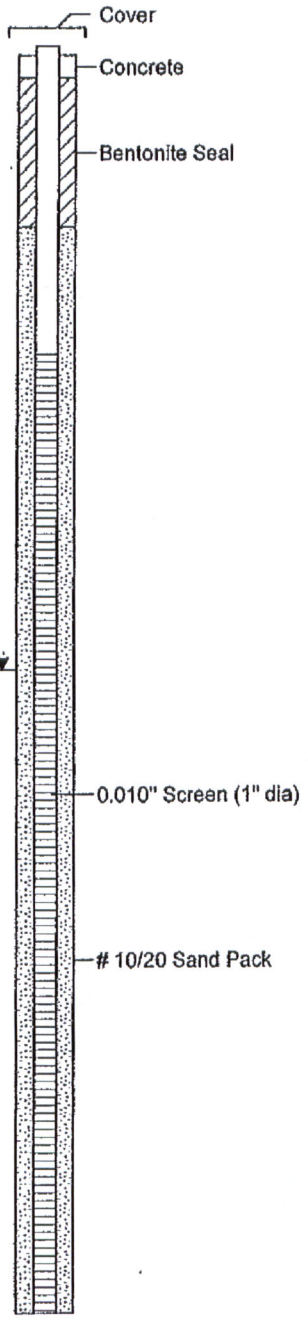
Environmental Compliance Northwest PO Box 230163 Portland, Oregon 97281	LOG OF BORING MW-2 (Page 1 of 1)

Powell Distributing Co. 1705 Lancaster Drive N.E. Salem, Oregon	Date Started	: 7/12/07	Company Rep.	:
	Date Completed	: 7/12/07	Northing Coord.	:
	Hole Diameter	: 3"	Easting Coord.	:
Project # 07-303	Drilling Method	: Direct-Push	Survey By	:
Additional Site Assessment	Sampling Method	: Macro-sampler	Logged By	: J. Day

Water Levels
▼ During Drilling
▽ After Completion

Depth in Feet	Blow Count	USCS	GRAPHIC	DESCRIPTION	Samples	REMARKS
0				Concrete		
		SW		Gravelly Sand (fill)		
		ML		Silt: gray, moist, some fine sand, soft, occasional gravel up to 1", petroleum odor.	1	
5						
				A very moist gravelly sand layer at 9 feet		
10					2	
		SM		Silty Sand: dark gray, moist to wet, very fine to fine sand, occasional rounded gravel up to 1/2", loose to medium dense with increased silt, weak petroleum odor.		
15						
20				Boring terminated at 20 feet		

Well: MW-2
Elev.:



05-20-2010 C:\Users\John\Documents\Projects\Powell Dist\Salem\MWinstall\Boring Logs\MW-2.bor

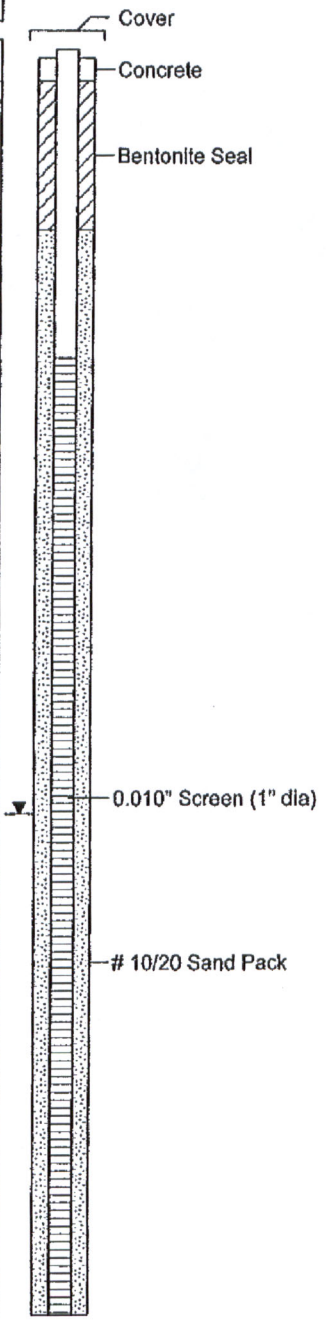
Environmental Compliance Northwest PO Box 230163 Portland, Oregon 97281	LOG OF BORING MW-3 (Page 1 of 1)

Powell Distributing Co. 1705 Lancaster Drive N.E. Salem, Oregon	Date Started	: 7/12/07	Company Rep.	:
	Date Completed	: 7/12/07	Northing Coord.	:
	Hole Diameter	: 3"	Easting Coord.	:
Project # 07-303	Drilling Method	: Direct-Push	Survey By	:
Additional Site Assessment	Sampling Method	: Macro-sampler	Logged By	: J. Day

Water Levels
▼ During Drilling
▽ After Completion

Depth in Feet	Blow Count	USCS	GRAPHIC	DESCRIPTION	Samples	REMARKS
0				Concrete/Gravel Fill		
		ML		Silt: dark olive brown, moist, soft to medium firm, some fine to coarse sand, occasional rounded gravel , weak petroleum odor.	1	
5				Increasingly firm, indistinct no odor below 8 feet		
10				Occasionally grades to silty fine sand	2	
15						
20				Boring terminated at 20 feet		

Well: MW-3
Elev.:



05-20-2010 C:\Users\John\Documents\Projects\Powell Dist\Salem\MW\Install\Boring Logs\MW-3.bor

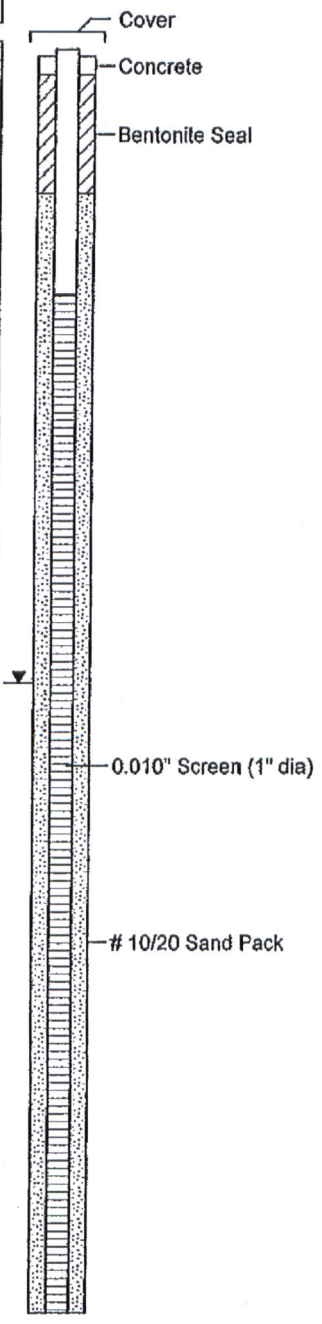
Environmental Compliance Northwest PO Box 230163 Portland, Oregon 97281	LOG OF BORING MW-4 (Page 1 of 1)

Powell Distributing Co. 1705 Lancaster Drive N.E. Salem, Oregon	Date Started	: 7/13/07	Company Rep.	:
	Date Completed	: 7/13/07	Northing Coord.	:
	Hole Diameter	: 3"	Easting Coord.	:
Project # 07-303	Drilling Method	: Direct-Push	Survey By	:
Additional Site Assessment	Sampling Method	: Macro-sampler	Logged By	: J. Day

Water Levels
▼ During Drilling
▽ After Completion

Depth in Feet	Blow Count	USCS	GRAPHIC	DESCRIPTION	Samples	REMARKS
0		SW		Silty/Gravelly Sand (fill)		
		ML		Silt: grayish brown to olive brown, moist, soft to medium firm, some very fine sand, occasional fine to 1" rounded gravel, no petroleum odor.		
5						
10						
15				Very moist to saturated below 17 feet, weak petroleum odor	1	
20				Occasional silty sand layers	2	
25				Boring terminated at 25 feet		

Well: MW-4
Elev.:



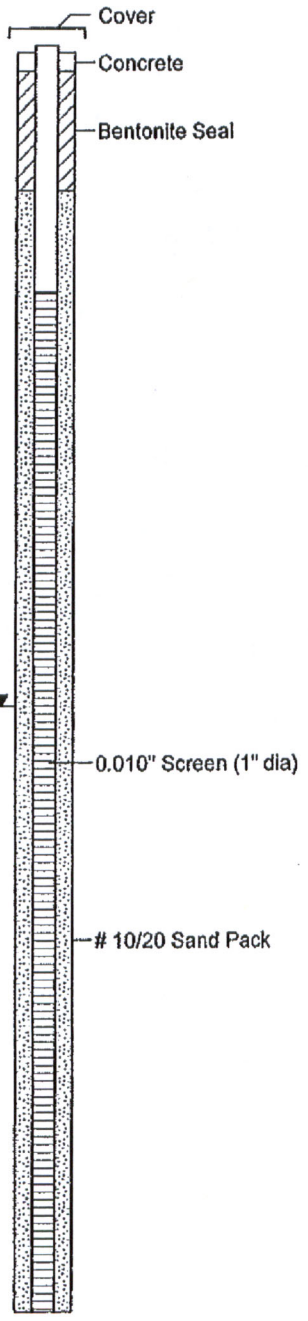
Environmental Compliance Northwest PO Box 230163 Portland, Oregon 97281	LOG OF BORING MW-5 (Page 1 of 1)

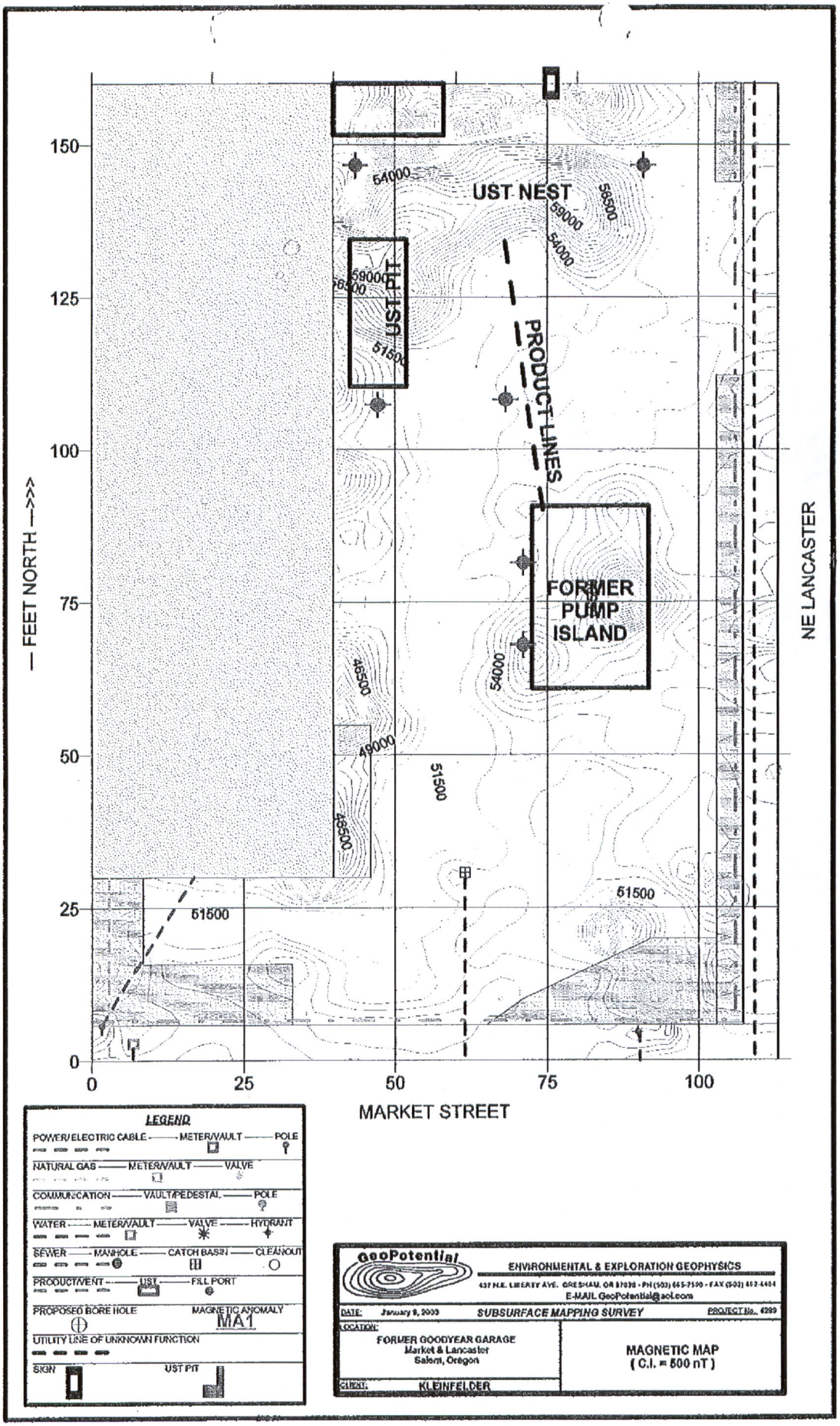
Powell Distributing Co. 1705 Lancaster Drive N.E. Salem, Oregon	Date Started	: 7/13/07	Company Rep.	:
	Date Completed	: 7/13/07	Northing Coord.	:
	Hole Diameter	: 3"	Easting Coord.	:
Project # 07-303	Drilling Method	: Direct-Push	Survey By	:
Additional Site Assessment	Sampling Method	: Macro-sampler	Logged By	: J. Day

Water Levels
▼ During Drilling
▽ After Completion

Depth in Feet	Blow Count	USCS	GRAPHIC	DESCRIPTION	Samples	REMARKS
0		SW		Silty/Gravelly Sand (fill)		
				Silt: brownish gray to gray-brown, moist, medium firm, some very fine to fine sand, occasional gravel up to 3/4", no petroleum odor.		
5						
10						
		ML		Grades to predominantly sandy silt below 13 feet, saturated where more sandy	1	
15						
20				Color change to olive gray below 23 feet		
25				Boring terminated at 25 feet		

Well: MW-5
Elev.:





LEGEND

POWER/ELECTRIC CABLE — METER/VAULT — POLE

NATURAL GAS — METER/VAULT — VALVE

COMMUNICATION — VAULT/PEDESTAL — POLE

WATER — METER/VAULT — VALVE — HYDRANT

SEWER — MANHOLE — CATCH BASIN — CLEANOUT

PRODUCT/VENT — UST — FILL PORT

PROPOSED BORE HOLE

MAGNETIC ANOMALY MA1

UTILITY LINE OF UNKNOWN FUNCTION

SIGN

UST PIT

GeoPotential
ENVIRONMENTAL & EXPLORATION GEOPHYSICS
437 N.E. LIBERTY AVE. GRESHAM, OR 97030 - PH (503) 665-7590 - FAX (503) 492-6404
E-MAIL GeoPotential@aol.com

DATE: January 9, 2003

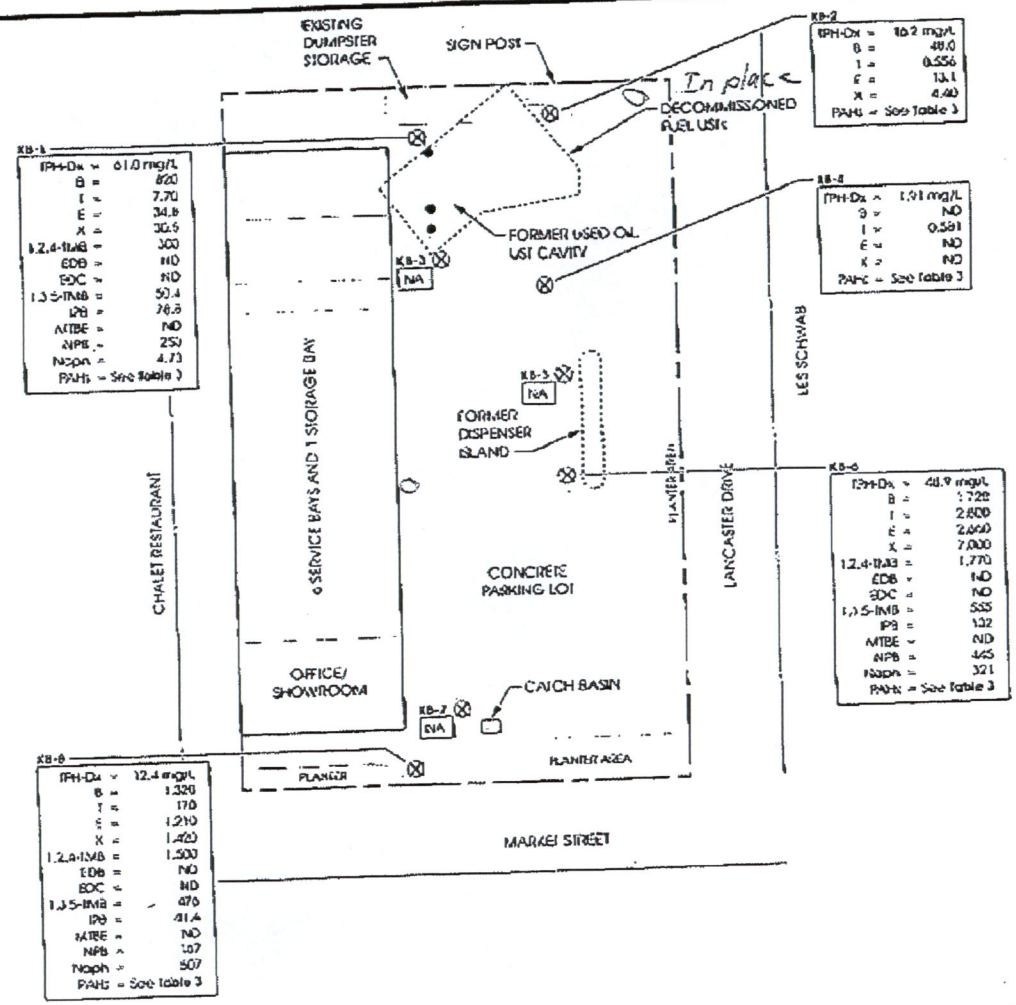
SUBSURFACE MAPPING SURVEY

PROJECT No. 4299

LOCATION:
FORMER GOODYEAR GARAGE
Market & Lancaster
Salem, Oregon

MAGNETIC MAP
(C.I. = 500 nT)

CLIENT: KLEINFELDER

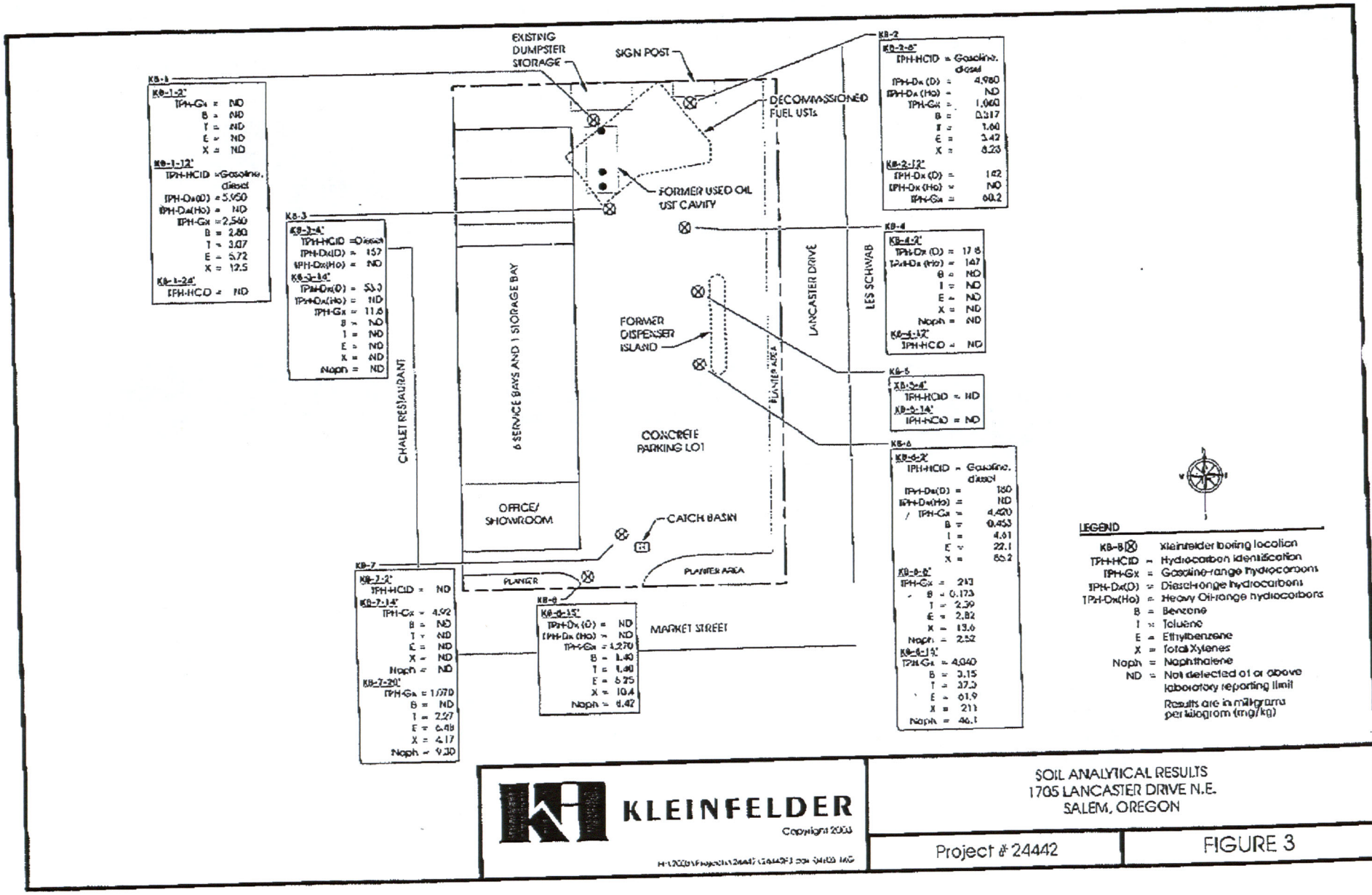


KLEINFELDER

GROUNDWATER ANALYTICAL RESULTS
1705 LANCASTER DRIVE N.E.
SALEM, OREGON

Project # 24442

FIGURE 4



KLEINFELDER

SOIL ANALYTICAL RESULTS
1705 LANCASTER DRIVE N.E.
SALEM, OREGON

Project # 24442

FIGURE 3

TABLE 2
GROUNDWATER ANALYTICAL RESULTS-TPH and VOCs
FORMER GOODYEAR TIRE STORE
1705 LANCASTER DRIVE NE
SALEM, OREGON
DEQ File No. 24-86-4082

Sample Number	Sample Date	TPH-Dx [1]		Benzene [2] (µg/L)	Toluene [2] (µg/L)	Ethylbenzene [2] (µg/L)	Total Xylenes [2] (µg/L)	1,2,4-Trimethylbenzene [3] (µg/L)	1,2-Dibromoethane [3] (µg/L)	1,2-Dichloroethane [3] (µg/L)	1,3,5-Trimethylbenzene [3] (µg/L)	Isopropylbenzene [3] (µg/L)	Methyl tert-butyl ether [3] (µg/L)	n-Propylbenzene [3] (µg/L)	Naphthalene [3] (µg/L)
		Diesel (mg/L)	Lube Oil (mg/L)												
KB-1	1/10/03	61.0	ND<0.500	820	7.70	34.8	30.5	303	ND<1.00	ND<1.00	50.4	78.6	ND<1.00	253	4.73
KB-2	1/10/03	16.2	ND<0.568	48.0	0.556	13.1	4.40	—	—	—	—	—	—	—	—
KB-4	1/10/03	1.91	ND<0.510	ND<0.400	0.581	ND<0.500	ND<1.50	—	—	—	—	—	—	—	—
KB-6	1/10/03	48.9	ND<0.833	1,720	2,800	2,660	7,000	1,770	ND<1.00	ND<50.0	555	132	ND<50.0	445	321
KB-8	1/10/03	12.4	ND<0.595	1,320	170	1,210	1,420	1,500	ND<20.0	ND<50.0	476	41.4	ND<50.0	167	507

1. Northwest Test Method-Total Petroleum Hydrocarbon-Diesel Range (NWTPH-Dx)
2. SW8021B
3. SW8260B
mg/L milligrams per liter
µg/l micrograms per liter
ND not detected at or above laboratory reporting limit
— not analyzed

TABLE 3
GROUNDWATER ANALYTICAL RESULTS-PAHs
FORMER GOODYEAR TIRE STORE
1705 LANCASTER DRIVE NE
SALEM, OREGON
DEQ File No. 24-88-4082

4.1 .24 .088 240

Sample Number	Sample Date	Polynuclear Aromatic Hydrocarbons (PAHs) [1] (µg/L)															
		Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
KB-1	1/10/03	40.0	14.8	29.5	1.07	0.278	0.256	0.311	ND<0.0556	1.36	ND<0.0556	4.18	166	0.100	34.8	301	23.3
KB-2	1/10/03	1.38	0.397	0.431	ND<0.0862	ND<0.0862	ND<0.0862	ND<0.0862	ND<0.0862	ND<0.0862	ND<0.0862	ND<0.0862	1.74	ND<0.0862	11.5	4.98	0.155
KB-4	1/10/03	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	ND<0.0625	0.0750	ND<0.0625	ND<0.0625
KB-6	1/10/03	5.12	2.11	2.23	0.409	0.121	0.121	0.167	ND<0.0758	0.394	ND<0.0758	0.833	10.1	ND<0.0758	1,300	13.6	2.05
KB-8	1/10/03	1.70	0.940	0.532	0.143	ND<0.595	ND<0.595	0.0952	ND<0.595	0.131	ND<0.595	0.333	3.55	ND<0.595	1,410	3.02	0.921

1. [illegible]
µg/L micrograms per liter

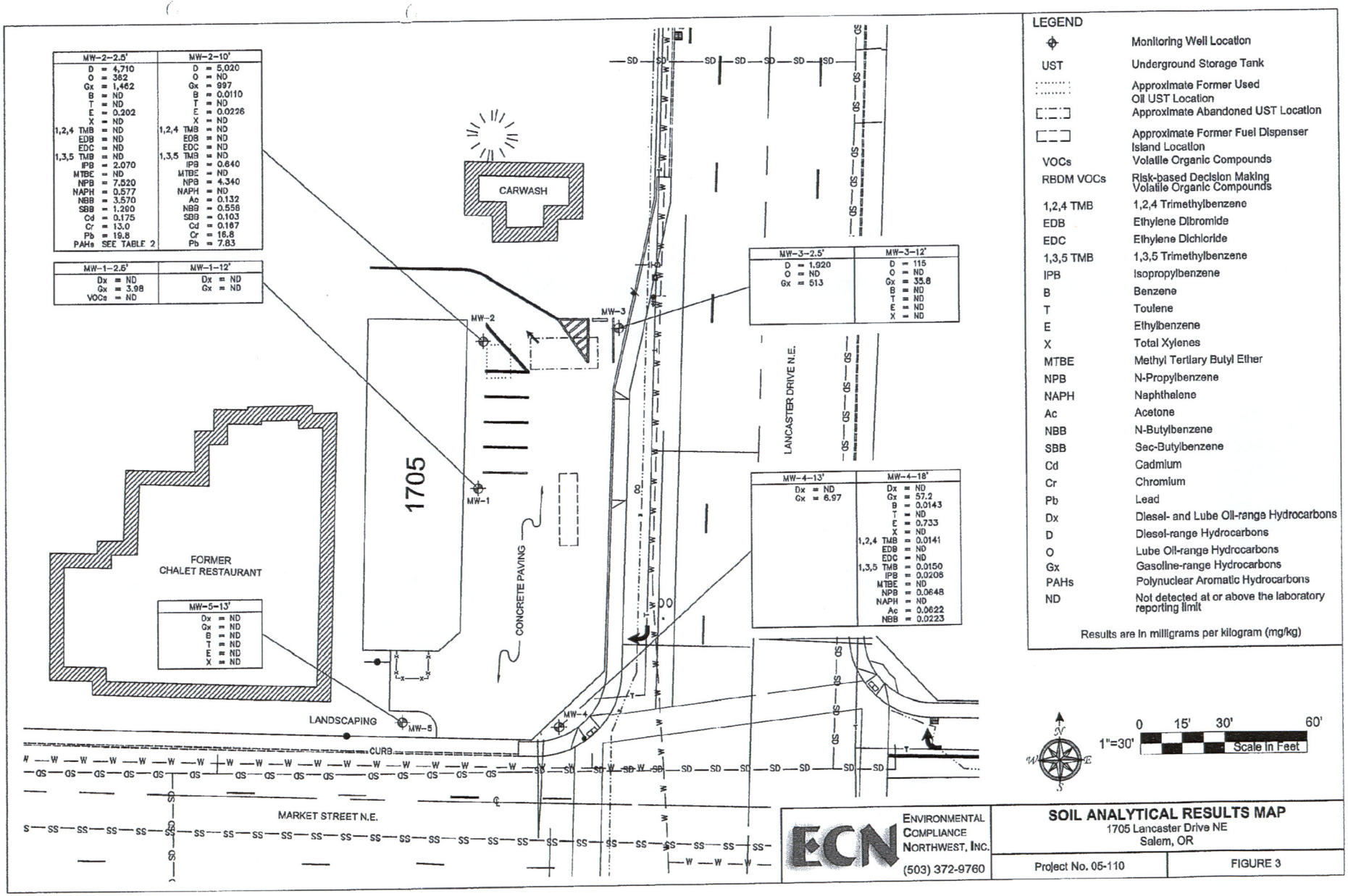
TABLE 1
SOIL ANALYTICAL RESULTS - TPH, BTEX, AND NAPHTHALENE
FORMER GOODYEAR TIRE STORE
1705 LANCASTER DRIVE NE
SALEM, OREGON
DEQ File No. 24-88-4082

24 R
270 O
1000 > EW

Sample Number	Depth (feet bgs)	Sample Date	TPH-HCID [1] (mg/kg)	TPH-Dx [2] Diesel (mg/kg)	TPH-Dx [2] Heavy Oil (mg/kg)	TPH-Gx [3] (mg/kg)	Benzene [4] (mg/kg)	Toluene [4] (mg/kg)	Ethylbenzene [4] (mg/kg)	Total Xylenes [4] (mg/kg)	Naphthalene [4] (mg/kg)
KB-1-2'	2	1/10/03	—	—	—	ND<3.14	ND<0.0314	ND<0.126	ND<0.126	ND<0.377	ND<0.628
KB-1-12'	12	1/10/03	gasoline, diesel	5,950	ND<326	2,540	2.80	3.07	5.72	12.5	—
KB-1-24'	24	1/10/03	ND	—	—	—	—	—	—	—	—
KB-2-6'	6	1/10/03	gasoline, diesel	4,980	ND<329	1,060	0.317	1.60	3.42	8.28	—
KB-2-12'	12	1/10/03	—	142	ND<66.0	60.2	—	—	—	—	—
KB-3-4'	4	1/10/03	diesel	157	ND<66.9	—	—	—	—	—	—
KB-3-14'	14	1/10/03	—	53.3	ND<68.7	11.8	ND<0.0343	ND<0.137	ND<0.137	ND<0.412	ND<0.687
KB-4-2'	2	1/10/03	—	17.8	147	ND<2.78	ND<0.0278	ND<0.111	ND<0.111	ND<0.334	ND<0.557
KB-4-12'	12	1/10/03	ND	—	—	—	—	—	—	—	—
KB-5-4'	4	1/10/03	ND	—	—	—	—	—	—	—	—
KB-5-14'	14	1/10/03	ND	—	—	—	—	—	—	—	—
KB-6-2'	2	1/10/03	gasoline, diesel	180	ND<62.2	4,420	0.453	4.61	22.1	85.2	—
KB-6-8'	8	1/10/03	—	—	—	213	0.173	2.39	2.82	13.6	2.52
KB-6-15'	15	1/10/03	—	—	—	4,040	3.15	37.3	61.9	211	46.1
KB-7-2'	2	1/10/03	ND	—	—	—	—	—	—	—	—
KB-7-14'	14	1/10/03	—	—	—	4.92	ND<0.0338	ND<0.135	ND<0.135	ND<0.405	ND<0.676
KB-7-20'	20	1/10/03	—	—	—	1,070	ND<0.0678	2.27	6.48	4.17	9.30
KB-8-15'	15	1/10/03	—	ND<21.7	ND<72.4	1,270	1.40	1.40	8.25	10.4	8.42

1. Northwest Test Method-Total Petroleum Hydrocarbon-Hydrocarbon Identification (NWTPH-HCID)
2. Northwest Test Method-Total Petroleum Hydrocarbon-Diesel Range (NWTPH-Dx)
3. Northwest Test Method-Total Petroleum Hydrocarbon-Gasoline Range (NWTPH-Gx)
4. SW 8021B

bgs below the ground surface
mg/kg milligrams per kilogram

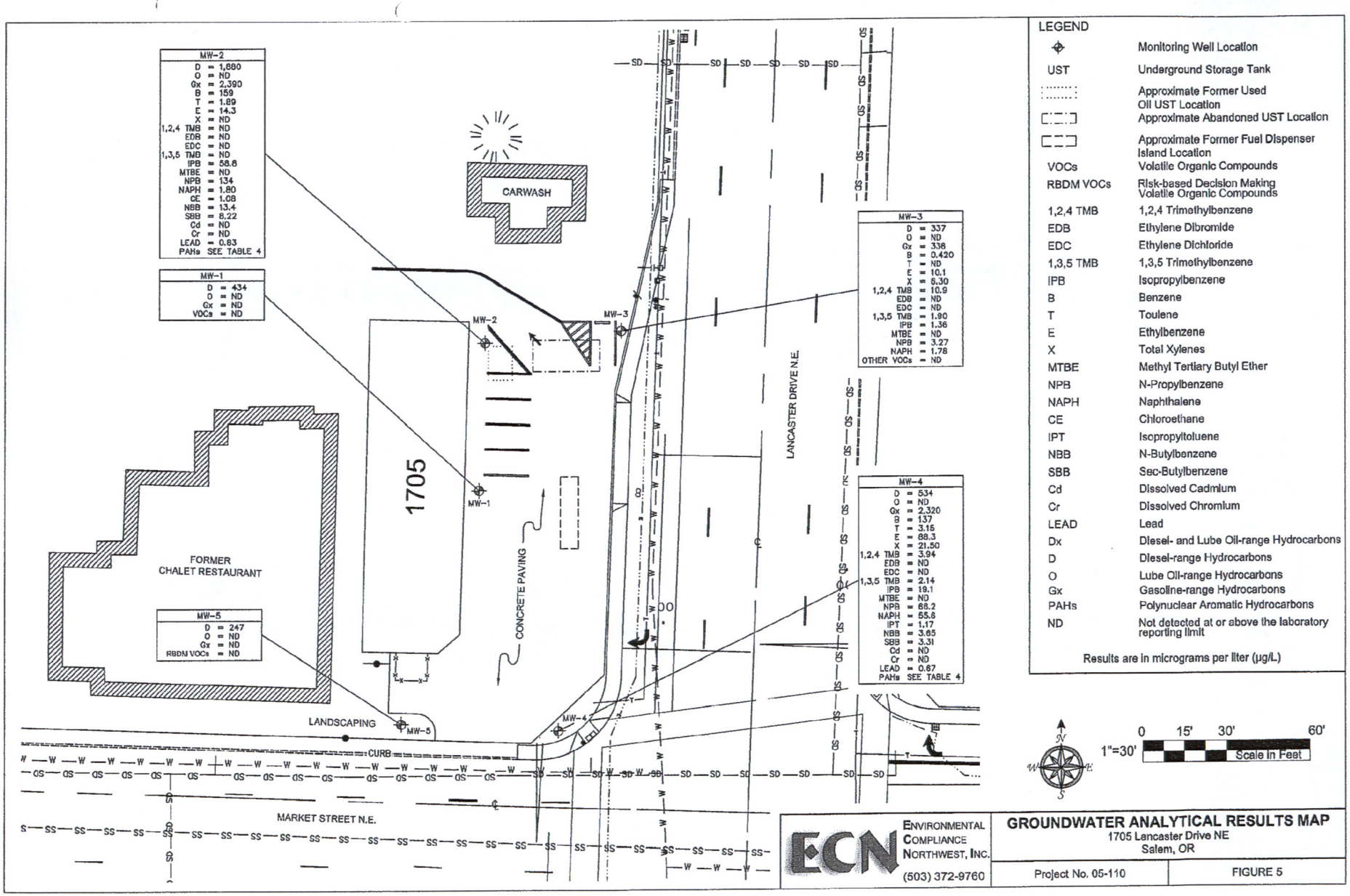


ECN Environmental Compliance Northwest, Inc.
(503) 372-9760

SOIL ANALYTICAL RESULTS MAP

1705 Lancaster Drive NE
Salem, OR

Project No. 05-110 | FIGURE 3

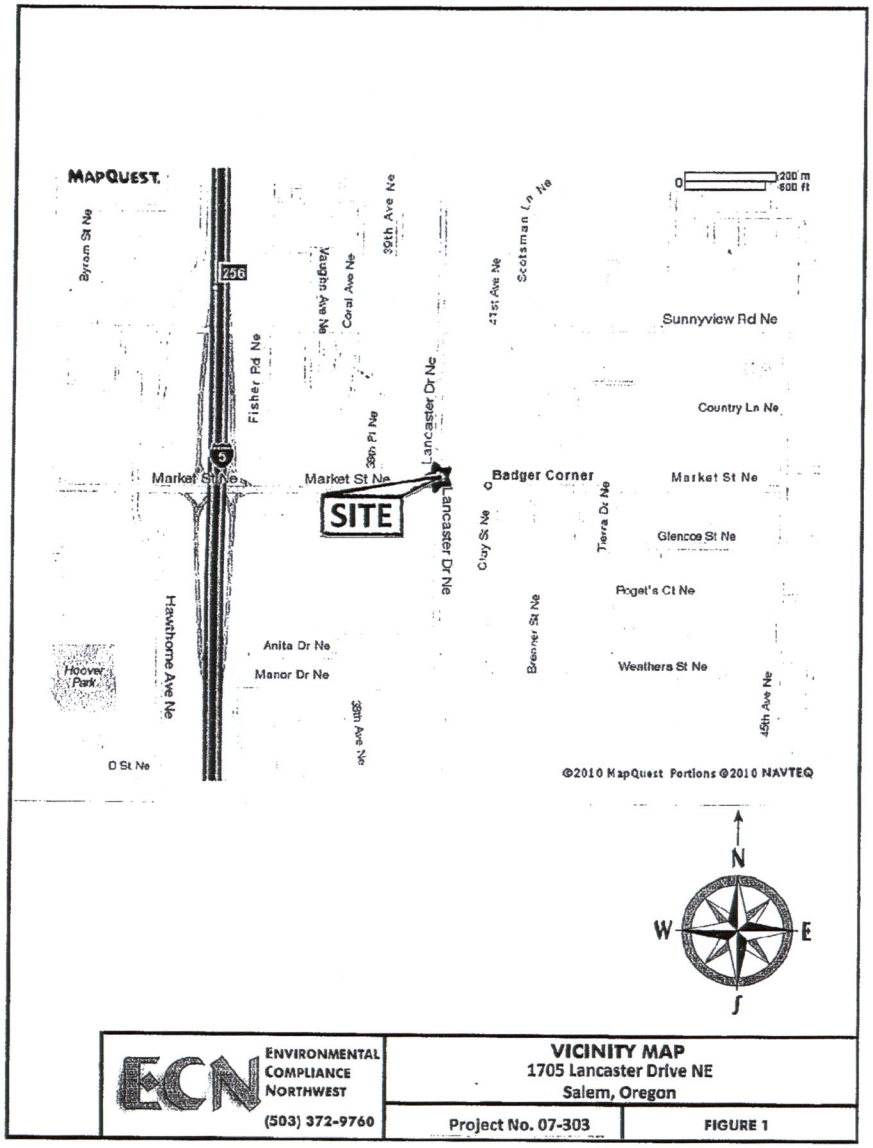


ECN Environmental Compliance Northwest, Inc.
(503) 372-9760

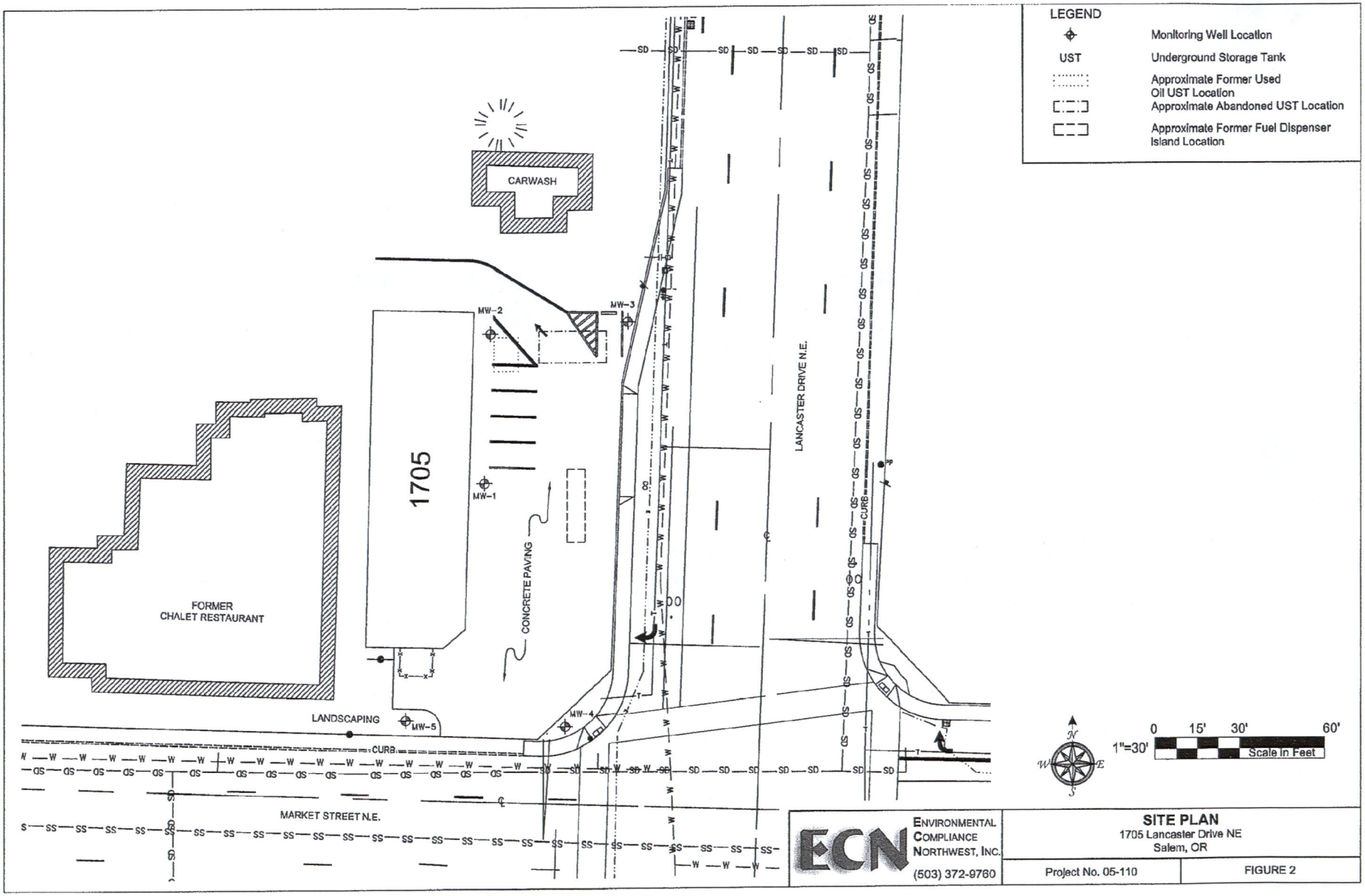
GROUNDWATER ANALYTICAL RESULTS MAP

1705 Lancaster Drive NE
Salem, OR

Project No. 05-110 | FIGURE 5



ECN ENVIRONMENTAL COMPLIANCE NORTHWEST (503) 372-9760	**VICINITY MAP** 1705 Lancaster Drive NE Salem, Oregon	
	Project No. 07-303	FIGURE 1



ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.
(503) 372-9760

SITE PLAN
1705 Lancaster Drive NE
Salem, OR

Project No. 05-110 | FIGURE 2

TABLE 1
Groundwater Analytical Results - TPH-Dx, TPH-G, VOCs, and Dissolved Lead
1705 Lancaster Drive NE
Salem, Oregon
ECN Project No. 07-303

Well I.D.	Date of Sampling	Casing Elevation (Feet amsl)	Depth to Water (Feet)	Groundwater Elevation (Feet amsl)	Change in Elevation (Feet)	TPH-Dx [1]		TPH-G [2]	B [3]	T [3]	E [3]	X [3]	1,2,4-TMB [3]	EDB [3]	EDC [3]	1,3,5-TMB [3]	IPB [3]	MTBE [3]	NPB [3]	Naph-thalene [3]	Other VOCs [3]	Dissolved Cd [4]	Dissolved Cr [4]	Dissolved Lead [4]	LAB
						Diesel	Lube Oil																		
MW-1	8/10/2007	99.66	10.54	89.12	---	434	ND<478	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	3/20/2008	99.66	8.97	90.69	1.57	455	ND<529	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/29/2008	99.66	10.62	89.04	-1.65	800	ND<480	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	3/27/2009	99.66	6.68	92.98	3.94	350	632	ND<100	ND<0.300	ND<0.600	ND<0.600	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	6/30/2009	99.66	8.57	91.09	-1.89	283	ND<510	ND<100	ND1.00	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/29/2009	99.66	10.99	88.67	-2.42	643	694	ND<100	ND<0.300	ND<0.600	ND<0.600	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	12/26/2009	99.66	6.09	93.57	4.9	417	783	ND<100	ND<0.300	ND<0.600	ND<0.600	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	3/31/2010	99.66	5.38	94.28	0.71	212	255	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
MW-2	8/10/2007	100.00	9.44	90.56	---	1,080	ND<479	2,390	169	1.69	14.3	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	58.8	ND<1.00	134	1.80	CE 1.08 NBB 13.4 SBB 8.22	ND<0.1	ND<1.0	0.83	SA
	3/20/2008	100.00	7.68	92.32	1.76	3,220	1230	ND<100	310	1.64	12.5	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	48.7	ND<1.00	127	ND<1.00	NBB 11.9 SBB 7.03	---	---	ND<0.10	SA.
	9/29/2008	100.00	10.74	89.26	-3.06	2,820	890	26,500	290	1.16	6.98	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	35.7	ND<1.00	97.4	4.52	NBB 9.89 SBB 6.84	ND<0.10	ND<1.0	ND<0.10	SA
	3/27/2009	100.00	5.85	94.15	4.89	7,820	1110	3,560	162	1.66	9.38	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	39.3	ND<1.00	104	ND<1.00	NBB 8.99 SBB 6.08	---	---	ND<0.10	SA
	6/30/2009	100.00	7.34	92.66	-1.49	4,260	492	ND<100	164	1.8	11.7	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	50.5	ND<1.00	143	ND<1.00	NBB 10.8 SBB 7.44	ND<0.10	ND<1.0	ND<0.10	SA
	9/29/2009	100.00	11.08	88.92	-3.74	2,330	147	2,950	277	1.49	8.39	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	42.6	ND<1.00	151	37.10	NBB 11.6 SBB 6.93	ND<0.10	ND<1.0	0.2	SA
	12/26/2009	100.00	5.82	94.18	5.26	5,570	2000	1,600	137	ND<1.00	3.23	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	21.7	ND<1.00	66.3	ND<1.00	NBB 5.22 SBB 3.45	ND<0.10	ND<1.0	ND<0.10	SA
	3/31/2010	100.00	4.74	95.26	1.08	4,510	819	1,810	168	1.29	6.63	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	26.3	ND<1.00	91.7	5.86	NBB 4.40 SBB 2.78	ND<0.10	ND<1.0	ND<0.10	SA
MW-3	8/10/2007	99.84	10.55	89.29	---	337	ND<478	336	0.420	ND<1.00	10.1	6.30	10.9	ND<1.00	ND<1.00	1.00	1.36	ND<1.00	3.27	1.78	---	---	---	---	SA
	3/20/2008	98.53	7.41	91.12	1.83	1420	862	ND<100	4.240	ND<1.00	52.8	16.90	12.4	ND<1.00	ND<1.00	3.62	6.54	ND<1.00	16.1	10.5	NBB 2.23 SBB 3.69	---	---		SA
	9/29/2008	98.53	9.19	89.34	-1.78	1610	603	ND<100	0.360	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.41	---	---	---	---	SA
	3/27/2009	98.53	5.06	93.47	4.13	600	684	ND<100	1.300	ND<1.00	3.35	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
	6/30/2009	98.53	6.92	91.61	-1.86	660	ND	ND<100	2.990	ND<1.00	10.5	ND<3.00	1.34	ND<1.00	ND<1.00	ND<1.00	1.84	ND<1.00	3.5	1.31	SBB 1.73	---	---	ND<0.10	SA
	9/29/2009	98.53	9.6	88.93	-2.68	567	528	1050	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.53	SBB 1.08	---	---	---	SA
	12/26/2009	98.53	4.51	94.02	5.09	333	749	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
	3/31/2010	98.53	3.86	94.67	0.65	171	274	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.22	ND<1.00	ND<1.00	1.36	---	---	---	---	SA
Risk-Based Concentrations [5]																									
- Volatilization to Outdoor Air (Occupational)						>S	NE	>S	14,000	>S	41,000	>S	>S	960	9,500	>S	>S	1,100,000	NE	16,000	NE	NV	NV	NV	
- Vapor Intrusion into Buildings (Occupational)						>S	NE	>S	2,800	>S	7,400	>S	>S	690	3,800	41,000	>S	580,000	NE		NE	NV	NV	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)						>S	NE	13,000	1,700	210,000	4,400	23,000	1,700	28	630	1,400	>S	62,000	NE	500	NE	57,000	>S	>S	

TABLE 1 - Continued
Groundwater Analytical Results - TPH-Dx, TPH-G, VOCs, and Dissolved Lead
1705 Lancaster Drive NE
Salem, Oregon
ECN Project No. 07-303

Well I.D.	Date of Sampling	Casing Elevation (Feet amsl)	Depth to Water (Feet)	Groundwater Elevation (Feet amsl)	Change in Elevation (Feet)	TPH-Dx [1]		TPH-G [2]	B [3]	T [3]	E [3]	X [3]	1,2,4-TMB [3]	EDB [3]	EDC [3]	1,3,5-TMB [3]	IPB [3]	MTBE [3]	NPB [3]	Naph-thalene [3]	Other VOCs [3]	Dissolved Cd [4]	Dissolved Cr [4]	Dissolved Lead [4]	LAB
						Diesel	Lube Oil																		
MW-4	8/10/2007	99.82	10.83	88.99	---	534	ND<490	2,320	137	3.15	88.3	21.60	3.94	ND<1.00	ND<1.00	2.14	19.1	ND<1.00	66.2	55.6	IPT 1.17 NBB 3.65 SBB 3.31	ND<0.1	ND<1.0	0.67	SA
	3/20/2008	99.82	9.45	90.37	1.38	368	ND<485	ND<100	62.3	ND<1.00	35.0	ND<3.00	1.35	ND<1.00	ND<1.00	ND<1.00	3.63	ND<1.00	8.47	14.8	---	---	---	0.18	SA
	9/29/2008	99.82	10.96	88.86	-1.51	812	ND<491	ND<100	248	1.88	201.0	ND<3.00	2.07	ND<1.00	ND<1.00	ND<1.00	18.2	ND<1.00	42	89.6	---	---	---	1.2	SA
	3/27/2009	99.82	7.29	92.53	3.67	428	ND<481	522	39.7	ND<1.00	3.6	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.66	ND<1.00	2.66	ND<1.00	---	---	---	ND<0.10	SA
	6/30/2009	99.82	0.11	90.71	-1.82	ND<245	ND<480	ND<100	15.6	ND<1.00	1.0	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
	9/30/2009	99.82	11.38	88.44	-2.27	449	ND<478	2,470	85.7	1.2	204.0	ND<3.00	ND<1.00	ND<1.00	ND<1.00	1.35	25.4	ND<1.00	41.6	105	---	---	---	0.33	SA
	12/26/2009	99.82	6.89	92.93	4.49	ND<239	499	111	5.33	ND<1.00	1.6	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.32	---	---	---	2.0	SA
	3/31/2010	99.82	5.97	93.85	0.92	118	218	ND<100	7.23	ND<1.00	1.6	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.31	ND<1.00	ND<1.00	ND<1.00	---	---	---	ND<0.10	SA
MW-5	8/10/2007	99.66	10.88	88.78	---	247	ND<478	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.26	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	3/20/2008	99.66	9.52	90.14	1.36	ND<239	ND<477	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	9/29/2008	99.66	10.87	88.79	-1.35	292	ND<479	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	3/27/2009	99.66	7.13	92.53	3.74	ND<239	ND<478	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	6/30/2009	99.66	9.15	90.51	-2.02	ND<255	ND<509	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND	---	---	---	SA
	9/30/2009	99.66	11.27	88.39	-2.12	ND<239	ND<478	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	12/26/2009	99.66	6.77	92.89	4.5	ND<239	ND<479	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
	3/31/2010	99.66	5.79	93.87	0.98	ND<77.5	ND<194	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	---	---	---	SA
Risk-Based Concentrations [5]																									
- Volatilization to Outdoor Air (Occupational)						>S	NE	>S	14,000	>S	41,000	>S	>S	960	9,500	>S	>S	1,100,000	NE	18,000	NE	NV	NV	NV	
- Vapor Intrusion into Buildings (Occupational)						>S	NE	>S	2,600	>S	7,400	>S	>S	690	3,800	41,000	>S	580,000	NE		NE	NV	NV	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)						>S	NE	13,000	1,700	210,000	4,400	23,000	1,700	28	630	1,400	>S	62,000	NE	600	NE	67,000	>S	>S	

ABBREVIATIONS:
B: Benzene
T: Toluene
E: Ethylbenzene
X: Total Xylenes
TMB: Trimethylbenzene
EDB: Ethylene Dibromide
EDC: Ethylene Dichloride
IPB: Isopropylbenzene
MTBE: Metyl tertiary-butyl ether
NPB: n-Propylbenzene
>S: The groundwater RBC exceeds the solubility limit.

NBB: n-Butylbenzene
SBB: sec- Butylbenzene
CE: Chloroethane
IPT: Isopropyltoluene
Cd: Cadmium
Cr: Chromium
ND: Not detected at or above the indicated laboratory reporting limit
NE: Not established by DEQ
NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations
>S: The groundwater RBC exceeds the solubility limit.

Results are in micrograms per liter (µg/L)
(1) Nortwest Method NWTPH-Dx
(2) Northwest Method NWTPH-Gx
(3) EPA Method 8021B Or 8260B
(4) EPA Method 6011
(5) Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs)

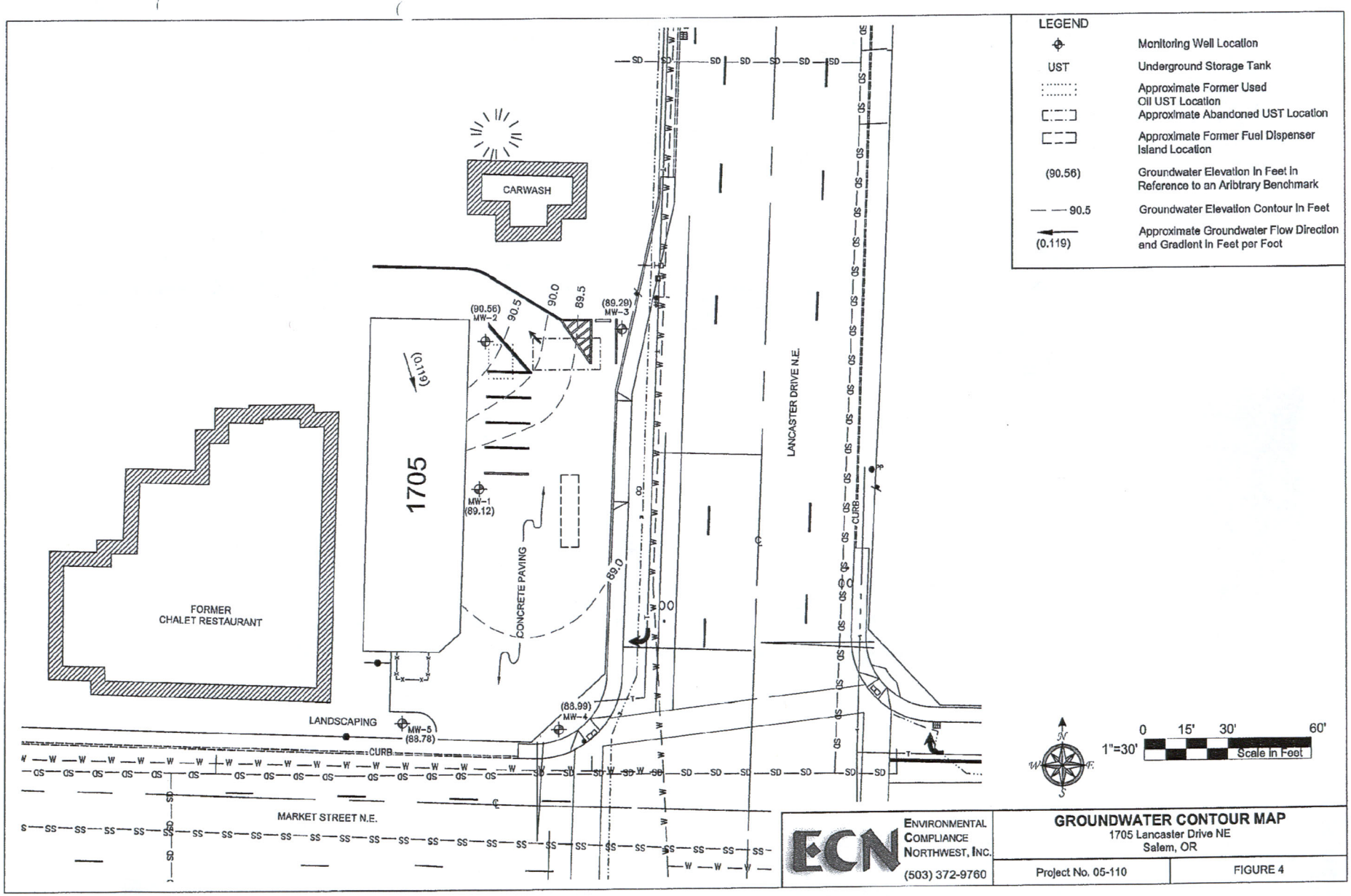
TABLE 2
Groundwater Analytical Results (PAHs)
1705 Lancaster Drive NE
Salem, Oregon
ECN Project No. 07-303

Polynuclear Aromatic Hydrocarbons (µg/L) [1]		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(k)fluoranthene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	LAB
Sample Identification	Sample Date																	
MW-1	9/29/2008	0.11	ND<0.0500	0.09	0.06	0.09	0.07	0.18	0.100	0.06	0.15	0.2	0.15	0.16	ND<0.050	0.4	0.14	SA
	3/27/2009	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	ND<0.0474	0.0884	ND<0.0474	ND<0.0474	SA
	6/30/2009	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	ND<0.0507	SA
	9/29/2009	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	ND<0.0518	SA
	12/26/2009	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	SA
MW-2	8/10/2007	1.35	0.191	0.153	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	3.04	ND<0.0478	0.674	1.00	0.0478	SA
	9/29/2009	5.89	ND<0.0479	1.91	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	1.09	12.2	ND<0.0479	20.9	25.8	0.892	SA
	3/27/2009	1.34	0.317	0.231	ND<0.0480	ND<0.0480	ND<0.0480	0.048	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	2.88	ND<0.0480	0.758	2.2	0.106	SA
	6/30/2009	2.27	0.648	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	ND<0.0515	4.97	ND<0.0515	1.23	4.22	0.0619	SA
	9/29/2009	157	84.5	112	ND<8.04	ND<8.04	ND<8.04	ND<8.04	ND<8.04	ND<8.04	ND<8.04	ND<8.04	456	ND<8.04	ND<8.04	710	43.5	SA
	3/31/2010	2.54	0.503	0.171	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.0577	4.49	ND<0.0500	1.31	3.22	0.127	SA
MW-3	3/20/2008	0.252	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	ND<0.0547	0.691	ND<0.0547	3.29	0.339	ND<0.0547	SA
	9/29/2008	0.09	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.14	0.15	ND<0.0500	ND<0.0500	0.28	0.14	SA
	3/27/2009	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	ND<0.0473	0.0473	ND<0.0473	0.0947	ND<0.0473	ND<0.0473	SA
	6/30/2009	ND<0.0509	ND<0.0509	ND<0.0509	0.0713	0.0509	ND<0.0509	0.0713	ND<0.0509	0.0713	0.611	ND<0.0509	0.0713	0.0611	0.0815	0.0815	ND<0.0509	SA
	9/29/2009	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	0.0874	ND<0.0482	SA
	12/26/2009	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	SA
	3/31/2010	0.217	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.0202	0.269	ND<0.0500	1.42	0.65	0.113	SA
MW-4	8/10/2007	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	17.8	ND<0.0489	ND<0.0489	SA
	9/29/2008	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.11	0.08	ND<0.0500	45	0.23	0.07	SA
	3/27/2009	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	0.671	ND<0.0486	ND<0.0486	SA
Risk-Based Concentrations [2]																		
- Volatilization to Outdoor Air (Occupational)		>S	NE	>S	NV	NV	NV	NE	NV	NV	NV	NV	>S	NV	10,000	NE	NV	
- Vapor Intrusion into Buildings (Occupational)		>S	NE	>S	NV	NV	NV	NE	NV	NV	NV	NV	>S	NV	10,000	NE	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)		>S	NE	>S	9.1	0.53	>S	NE	>S	>S	0.21	>S	>S	>S	500	NE	>S	

Abbreviations:

NO not detected at or above the indicated laboratory reporting limit
SA Specialty Analytical
µg/L Micrograms per Liter
NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations
NE: A Risk-Based Concentration has not been determined for this constituent
>S: The groundwater RBC exceeds the solubility limit.

[1] DEQ Method 8270SIM
[2] Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs) (DEQ, 2009).


LEGEND
Monitoring Well Location
UST
Underground Storage Tank
Approximate Former Used Oil UST Location
Approximate Abandoned UST Location
Approximate Former Fuel Dispenser Island Location
(90.56)
Groundwater Elevation In Feet In Reference to an Aribtrary Benchmark
90.5
Groundwater Elevation Contour In Feet
(0.119)
Approximate Groundwater Flow Direction and Gradient In Feet per Foot
CARWASH
1705
FORMER CHALET RESTAURANT
LANCASTER DRIVE N.E.
MARKET STREET N.E.
CONCRETE PAVING
LANDSCAPING
CURB
MW-1 (89.12)
MW-2 (90.56)
MW-3 (89.29)
MW-4 (88.99)
MW-5 (88.78)
90.0
89.5
89.0
0 15' 30' 60'
1"=30'
Scale in Feet
ECN
ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.
(503) 372-9760
GROUNDWATER CONTOUR MAP
1705 Lancaster Drive NE
Salem, OR
Project No. 05-110
FIGURE 4