

District I  
P.O. Box 1980, Hobbs, NM

District II  
P.O. Drawer DD, Artesia, NM 88221

District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Street  
Santa Fe, New Mexico 87505

SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

RISK  
Bedrock

**PIT REMEDIATION AND CLOSURE REPORT**

<b>Operator:</b> PNM Gas Services ( Burlington )		<b>Telephone:</b> 324-3764	
<b>Address:</b> 603 W. Elm Street Farmington, NM 87401			
<b>Facility or Well Name:</b> Whitley #5			
<b>Location:</b>	Unit <u>G</u>	Sec <u>8</u>	T <u>27 N</u> R <u>9 W</u> County <u>San Juan</u>
<b>Pit Type:</b>	Separator <input type="checkbox"/>	Dehydrator <input checked="" type="checkbox"/>	Other _____
<b>Land Type:</b>	BLM <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Fee <input type="checkbox"/> Other _____
<b>Pit Location:</b>	Pit dimensions: length <u>15</u> ' width <u>15</u> ' depth <u>3</u> '		
(Attach diagram)	Reference: wellhead <input checked="" type="checkbox"/> other _____		
	Footage from reference: <u>107</u> '		
	Direction from reference: <u>53</u> Degrees <input type="checkbox"/> East North <input type="checkbox"/>		
	of <input checked="" type="checkbox"/> West South <input checked="" type="checkbox"/>		
<b>Depth to Ground Water:</b>	Less than 50 feet (20 points)		
(Vertical distance from contaminants to seasonal high water elevation of ground water)	50 feet to 99 feet (10 points)		
	Greater than 100 feet (0 points) <u>0</u>		
<b>Wellhead Protection Area:</b>	Yes (20 points)		
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)	No (0 points) <u>0</u>		
<b>Distance to Surface Water:</b>	Less than 200 feet (20 points)		
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	200 feet to 1,000 feet (10 points)		
	Greater than 1,000 feet (0 points) <u>0</u>		
<b>RANKING SCORE (TOTAL POINTS):</b>			<u>0</u>

RECEIVED  
JAN 31 2001  
OIL CON. DIV.  
DIST. 3

Whitley #5

Date Remediation Started: 07/14/1999

Date Completed: 07/14/1999

Remediation Method: Excavation X

Approx. Cubic Yard 37

(Check all appropriate sections)

Landfarmed X

Amount Landfarmed (cubic yds) 37

Other

Remediation Location:

Onsite

X

Offsite

(i.e., landfarmed onsite, name and location of offsite facility)

Backfill Material Location:

General Description of Remedial Action:

Excavated contaminated soil to a pit size of 21' X 12' X 4' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by disking/plowing until soil met regulatory levels.

\*\*\* Sandstone encountered at 4'. See attached risk analysis form.

Ground Water Encountered:

No



Yes



Depth

Final Pit Closure  
Sampling:

Sample Location

5 pt. composite - bottom.

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth

4'

Sample date

07/14/1999

Sample time

1:05:00 PM

Sample Results

Benzene (ppm)

0.68

Total BTEX (ppm)

60.48 \*\*\*

Field headspace (ppm)

TPH (ppm)

120.00

Method

8015B

Vertical Extent (ft)

Risk Analysis form attached Yes



No



Ground Water Sample:

Yes



No

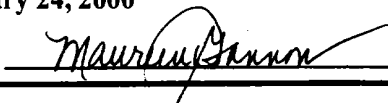


(If yes, see attached Groundwater Site Summary Report)

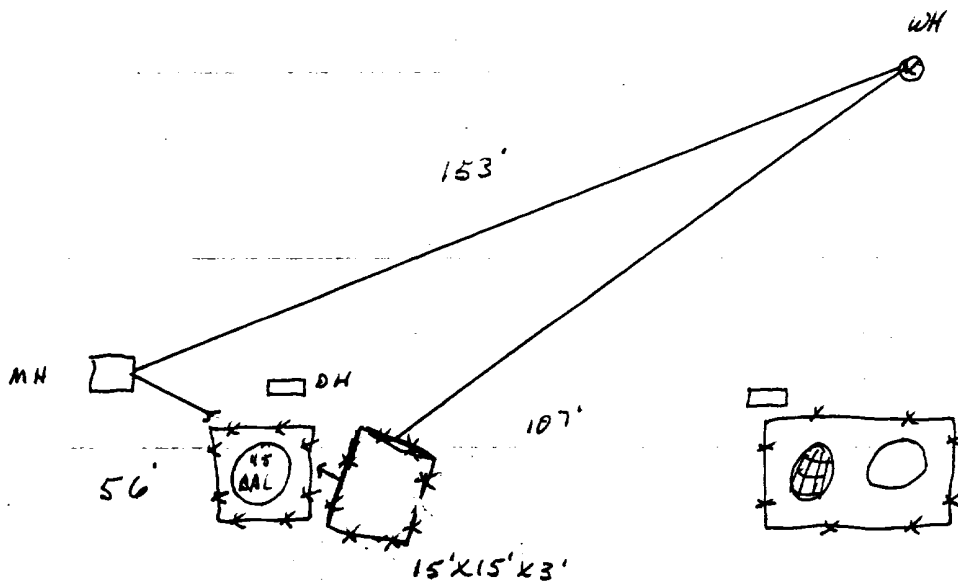
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

DATE January 24, 2000

SIGNATURE

PRINTED NAME Maureen Gannon  
AND TITLE Project Manager

Whitley #5  
(L) 8-27N-9W  
Burlington  
7-14-99 at 1123  
53° W of S



### Excavation Sampling

21' (N+S) x 12' (E+W) x 4' (D)

### PID Reading

3' - 886 ppm

4' - 1216 ppm

West wall sample  
at 4' - 13.8 ppm

North wall sample  
at 4' - 5.5 ppm

East wall sample  
at 4' - 7.0 ppm

5 point bottom composite sample  
at 4' - 1301 ppm

South wall sample  
at 4' - 15 ppm

not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 30-Jul-99

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Hanks 12Y, Whitley 5 Drip & Whitley 5  
**Lab Order:** 9907035

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**CASE NARRATIVE**

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 30-Jul-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Whitley 5
<b>Work Order:</b>	9907035	<b>Client Sample ID:</b>	9907141305; 5pt Bottom Comp
<b>Lab ID:</b>	9907035-04A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Hanks 12Y, Whitley 5 Drip & Whitley 5	<b>Collection Date:</b>	7/14/99 1:05:00 PM
		<b>COC Record:</b>	7649

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	120	25		mg/Kg	1	7/28/99
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: DC
Toluene	14000	5000		µg/Kg	2500	7/16/99
Ethylbenzene	2700	2500		µg/Kg	2500	7/16/99
m,p-Xylene	37000	5000		µg/Kg	2500	7/16/99
o-Xylene	6100	2500		µg/Kg	2500	7/16/99
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: DM
Benzene	680	250		µg/Kg	250	7/19/99

60480  
60.48 ppm

**Qualifiers:**

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY SERVING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 30-Jul-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Whitley 5
<b>Work Order:</b>	9907035	<b>Client Sample ID:</b>	9907141310; 4 Wall Comp
<b>Lab ID:</b>	9907035-05A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Hanks 12Y, Whitley 5 Drip & Whitley 5	<b>Collection Date:</b>	7/14/99 1:10:00 PM
		<b>COC Record:</b>	7649

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/29/99

**Qualifiers:**

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- Surr - Surrogate

1 of 1

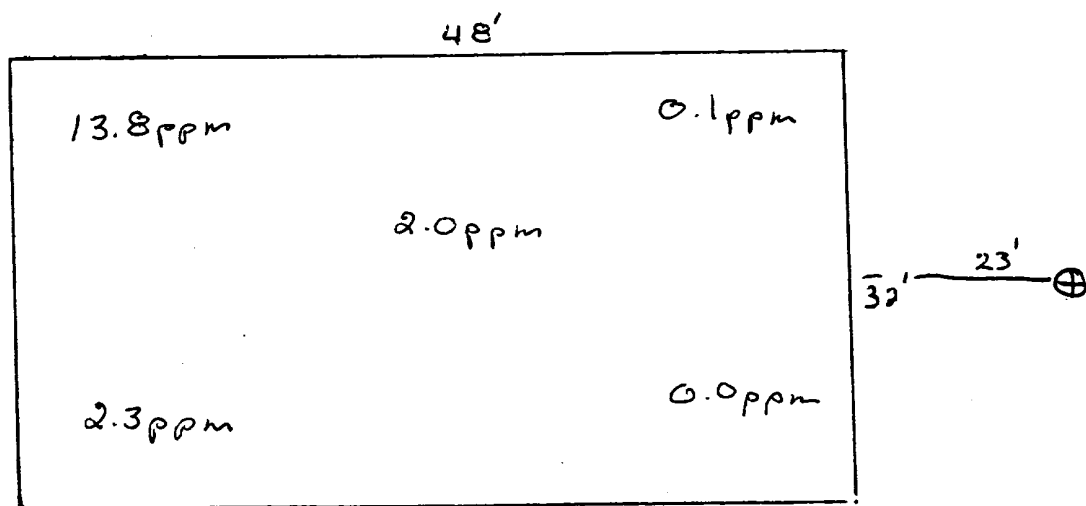
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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Whitley #5  
Sec-8 T-27N R-9W ULG  
Burlington

# Landfarm Drawing

App 37.33 cu yds



2" to 12" Depth  
Headspace 3.7ppm  
Sample # 9909010844

Not to Scale

OFF: (505) 325-5667

# ON SITE

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

**On Site Technologies, LTD.**

**Date:** 15-Sep-99

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**CLIENT:** PNM - Public Service Company of NM

**Project:** Hanks & Whitley Landfarms

**Lab Order:** 9909004

## CASE NARRATIVE

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Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.



OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 15-Sep-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Whitley #5 LF
<b>Work Order:</b>	9909004	<b>Client Sample ID:</b>	9909010844; 5pt Composite
<b>Lab ID:</b>	9909004-03A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Hanks & Whitley Landfarms	<b>Collection Date:</b>	9/1/99 8:44:00 AM
		<b>COC Record:</b>	7655

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	9/8/99

**Qualifiers:**

PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



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Well Name:	Whitley #5
Well Legals:	Sec 8, T27N, R9W, Unit G
Pit Type:	Dehydrator
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Greater than 100 feet

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## **RISK ANALYSIS**

PNM requests closure of their former pit on the Whitley #5 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 393 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Huerfano Peak, NM series 7.5 minute topographic map.)
2. PNM excavated 37 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached map and analytical results for the side wall profiles). Source removal minimizes the possibility of surface water contamination.
3. Sandstone was encountered at 4 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
4. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes that their former pit on the Whitley #5 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.

District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

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APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

## OIL CONSERVATION DIVISION

2040 South Pacheco Street  
Santa Fe, New Mexico 87505

## PIT REMEDIATION AND CLOSURE REPORT

<b>Operator:</b>	PNM Gas Services ( Williams )	<b>Telephone:</b>	324-3764
<b>Address:</b>	603 W. Elm Street Farmington, NM 87401		
<b>Facility or Well Name:</b>	Whitley #5 Drip		
<b>Location:</b>	Unit <u>    G    </u>	Sec <u>    8    </u>	T <u>  27N  </u> R <u>    9W    </u> County <u>  San Juan  </u>
<b>Pit Type:</b>	Separator <input type="checkbox"/>	Dehydrator <input type="checkbox"/>	Other <u>    Line drip    </u>
<b>Land Type:</b>	BLM <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Fee <input type="checkbox"/> Other <u>                    </u>

<b>Pit Location:</b>	Pit dimensions:	length <u>    15'    </u>	width <u>    15'    </u>	depth <u>    4'    </u>
(Attach diagram)	Reference:	wellhead <input type="checkbox"/>	other <u>  Drip blowdown riser valve.  </u>	
	Footage from reference:	<u>    4'    </u>		
	Direction from reference:	<u>  90  </u> Degrees	<input checked="" type="checkbox"/> East	North <input checked="" type="checkbox"/>
			of	
			<input type="checkbox"/> West	South <input type="checkbox"/>

<b>Depth to Ground Water:</b>	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) ( 0 points)	0
<small>(Vertical distance from contaminants to seasonal high water elevation of ground water)</small>			

<b>Wellhead Protection Area:</b>	Yes No	(20 points) ( 0 points)	0
<small>(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)</small>			

<b>Distance to Surface Water:</b>	Less than 200 feet 200 feet to 1,000 feet Greater than 1,000 feet	(20 points) (10 points) ( 0 points)	0
<small>(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)</small>			

<b>RANKING SCORE (TOTAL POINTS):</b>	0
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Whitley #5 Drip

Date Remediation Started: \_\_\_\_\_

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

Remediation Method: Excavation \_\_\_\_\_

Approx. Cubic Yard \_\_\_\_\_

(Check all appropriate sections)

Landfarmed \_\_\_\_\_

Amount Landfarmed (cubic yds) \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite \_\_\_\_\_

Offsite \_\_\_\_\_

(i.e., landfarmed onsite, name and location of offsite facility)

Backfill Material Location: \_\_\_\_\_

General Description of Remedial Action:

No remedial action necessary. Lab results below OCD/BLM standards.

Ground Water Encountered: No ☒ Yes ☐ Depth \_\_\_\_\_

Final Pit Closure Sampling:

Sample Location 5 pt. composite - bottom.

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth 11'

Sample date 07/14/1999 Sample time 11:55:00 AM

Sample Results

Benzene (ppm) < 0.001

Total BTEX (ppm) < 0.007

Field headspace (ppm) 1.4

TPH (ppm) < 25.00 Method 8015B

Vertical Extent (ft) \_\_\_\_\_ Risk Analysis form attached Yes ☐ No ☒

Ground Water Sample: Yes ☐ No ☒ (If yes, see attached Groundwater Site Summary Report)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

DATE January 24, 2000

SIGNATURE Maureen Gannon

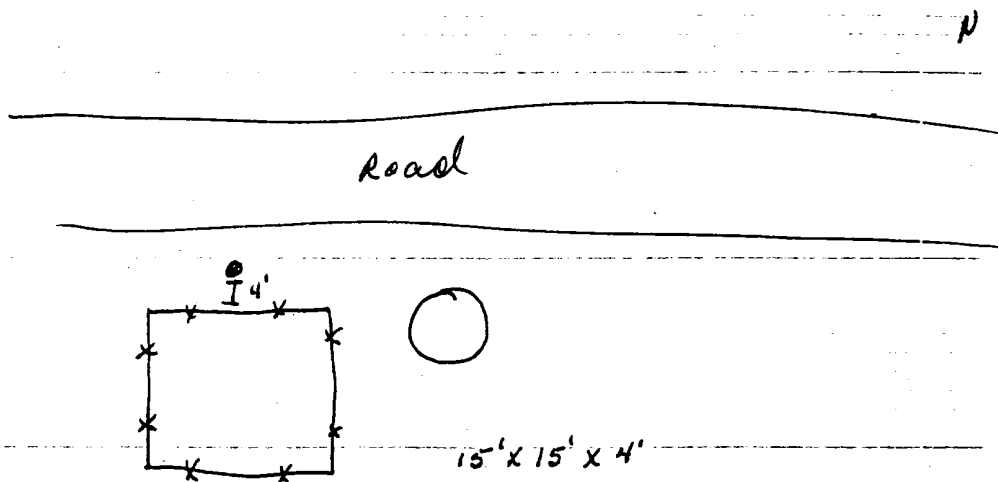
PRINTED NAME Maureen Gannon  
AND TITLE Project Manager

Whitley #5 Drip  
(24) 8-27N-9W

WFS

7-14-94 @ 1115

90° E of N



Field Headspace: 1.4 ppm

not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 30-Jul-99

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Hanks 12Y, Whitley 5 Drip & Whitley 5  
**Lab Order:** 9907035

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**CASE NARRATIVE**

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Whitley 5 Drip
Work Order:	9907035	Client Sample ID:	9907141155; 5pt Comp
Lab ID:	9907035-03A	Matrix:	SOIL
Project:	Hanks 12Y, Whitley 5 Drip & Whitley 5	Collection Date:	7/14/99 11:55:00 AM
		COC Record:	7649

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/28/99
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: DC
Benzene	ND	1		µg/Kg	1	7/16/99
Toluene	ND	2		µg/Kg	1	7/16/99
Ethylbenzene	ND	1		µg/Kg	1	7/16/99
m,p-Xylene	ND	2		µg/Kg	1	7/16/99
o-Xylene	ND	1		µg/Kg	1	7/16/99

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surr: - Surrogate