GW - 1

REPORTS

YEAR(S):

2005

GIANT
REFINING COMPANY

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4569

September 19, 2005

RE: Giant Refining Company, Bloomfield Refinery
Request for Additional Information and Changes to the North Boundary Barrier Collection System Design and Monitoring Plan Phase II
EPA # NMD089416416

Dear Mr. Price,

Giant Refining Company Bloomfield (GRCB) received the July 26, 2005 letter from the New Mexico Environmental Department (NMED) requesting additional information regarding well data, general chemistry parameters and analytical results for the North Boundary Barrier Collection System Design and Monitoring Plan Phase II. The purpose of this letter is to provide NMED with the requested additional information.

1. An updated map is in Attachment A. Well construction diagrams are in Attachment B.

2. Analytical laboratory reports are in Attachment C.

3. The Hach Spectrophotometer DR/2010 is used in conjunction with the Hach High Range Dissolved Oxygen AccuVac method to determine dissolved oxygen. The High Range Dissolved Oxygen Accuvac Ampul contains reagent vacuum-sealed in a 12-mL ampul. When the Accuvac ampul is broken open in a sample containing dissolved oxygen, it forms a yellow color, which turns purple. The purple color development is

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P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

proportional to the concentration of dissolved oxygen. The Hach Spectrophotometer DR/2010 has been factory calibrated. This is a colormetric method therefore the sample is filtered and used to zero the instrument before adding the reagent.
Sample collection takes place after the well is sufficiently purged. Organic compounds or salts present in our groundwater possibly cause enough interference to skew the results. Groundwater color may also affect the results. The wells were remeasured during the Annual Sampling event with similar results as the last sampling event. These results will be included in the Annual Report.

4. The discrepancy occurred due to a typographical error. The Ultrameter 6P reads electrical conductance in micromhos per centimeter. The tables have been revised to include the correct units.

5. **Collection Methods**

At least three well volumes are purged from the well. Purge volumes are determined using the following equation:
Well Depth – Casing Height – Depth to Liquid X Conversion Factor X Three.
The conversion factor is determined by the diameter of the well casing.

Casing	Conversion Factor
6"	1.50 gal/ft
5"	1.02 gal/ft
4"	0.74 gal/ft
3"	0.367 gal/ft
2"	0.163 gal/ft

Typically disposable bailers are used for purging and sampling. Each bailer holds one liter of liquid. Three well volumes can be calculated by counting the number of times a well is bailed.

Well Sampling and Sample Handling Procedure

Equipment and supplies needed for collecting representative groundwater samples include:

- Interface Meter
- Ultrameter 6P
- Distilled Water
- Disposable Latex Gloves
- Disposable Bailers
- String/Twine

- Cooler with Ice
- Bottle kits with Preservatives (provided by the contract laboratory)
- Disposable 0.45 micron Field Filters and Syringes
- Glass Jar (usually 4 oz.)
- Sharpie Permanent Marker
- Field Paperwork/Logsheet
- Two 5-gallon buckets
- Trash container (plastic garbage bag)
- Ziploc Bags
- Paper towels

The Ultrameter 6P is calibrated daily using a pH 7 standard and 3000 ppm conductivity standard. Water quality parameters, pH, electrical conductance, and temperature are monitored during purging using the Ultrameter 6P. Sampling occurs after the pH, conductivity, and temperature values do not vary more than 10% for at least three measurements, and at least three well casing volumes have been removed from the well. Samples are collected with the bailer and poured into the appropriate sample containers. Two people are usually utilized for sampling. Sampling takes place over a bucket to insure that spills are contained

For dissolved metals, sample water is poured into a jar and then extracted with a syringe. The syringe is then used to push water through a field filter into the proper sample bottle to collect the dissolved metals sample. Volatile organic analysis samples are collected as to allow no head space in the container.

Samples are labeled immediately with location, date, time, analysis, preservative, and sampler. Then they are put in a Ziploc and placed in a cooler holding sufficient ice to keep them cool. The field logsheet is reviewed to verify all entries.

Purge and Decontamination Water Disposal

The Ultrameter 6P and the interface probe are rinsed with distilled water after every well. The rinse procedure takes place over a bucket to insure that spills are contained.
All rinse and purge water is contained and then disposed of through the refinery wastewater system.

If you need additional information, please call me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator – Giant Refining – Bloomfield

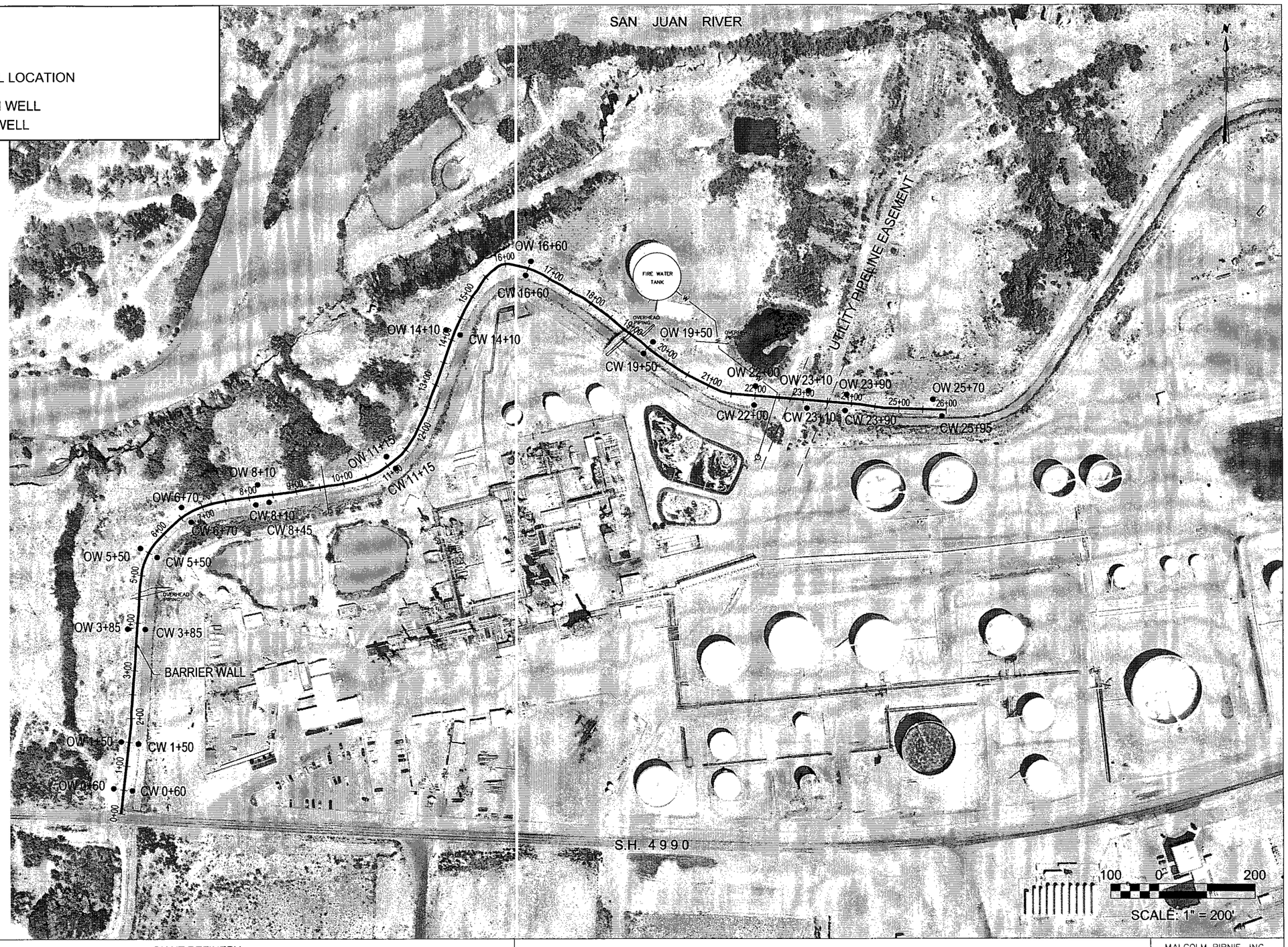
Cc: Randy Schmaltz – Environmental Manager – Giant Refining – Bloomfield

LEGEND:

BARRIER WALL LOCATION

OBSERVATION WELL

COLLECTION WELL



MALCOLM PIRNIE	GIANT REFINERY BLOOMFIELD, NEW MEXICO CORRECTIVE MEASURES IMPLEMENTATION REPORT	OBSERVATION AND COLLECTION WELL LOCATION MAP SCALE:1"=200'	MALCOLM PIRNIE, INC. SEPTEMBER 2005 FIGURE 1

User:Forden Spec:PIRNIE STANDARD File:M:\51270001\acad\Proj\dwg\final figures\5127E10.DWG Scale:1:1 Date:09/06/2005 Time:14:25 Layout:FIGURE 3

PRECISION ENGINEERING, INC.

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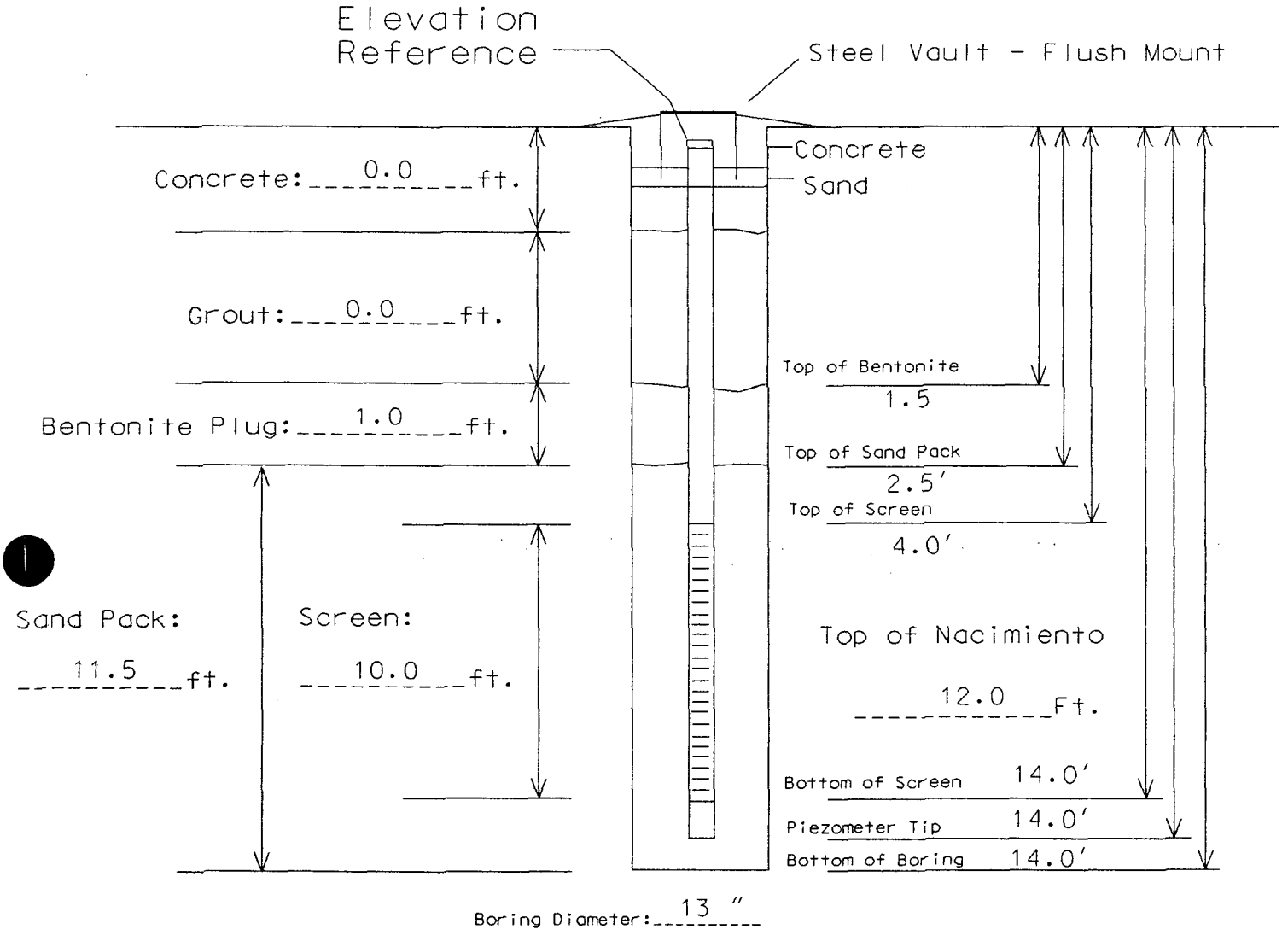
Installation Diagram

Monitoring Well No. CW 0+60



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40. 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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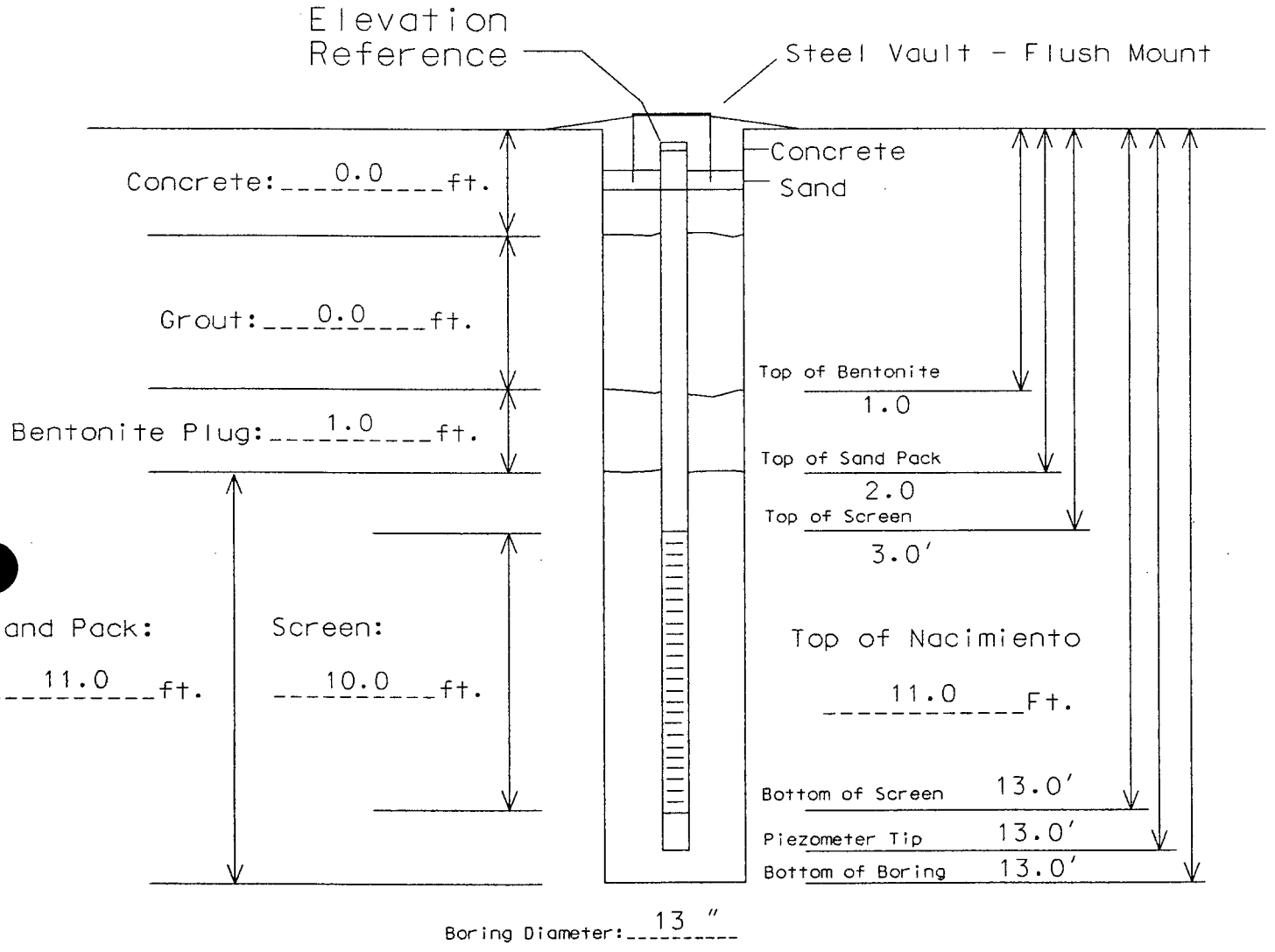
505-523-7674

Installation Diagram

Monitoring Well No. CW 1+50



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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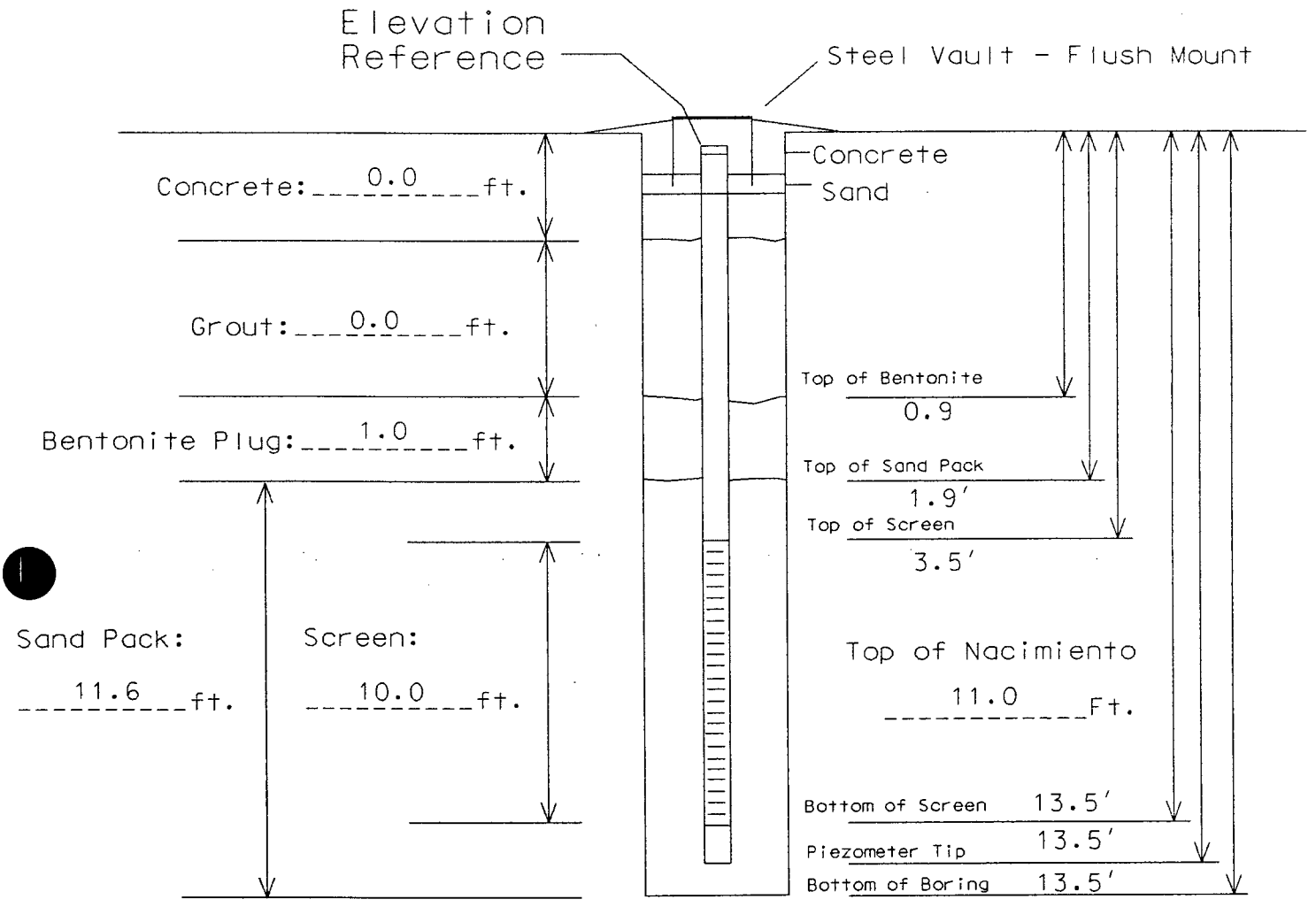
Installation Diagram

Monitoring Well No. CW 3+85



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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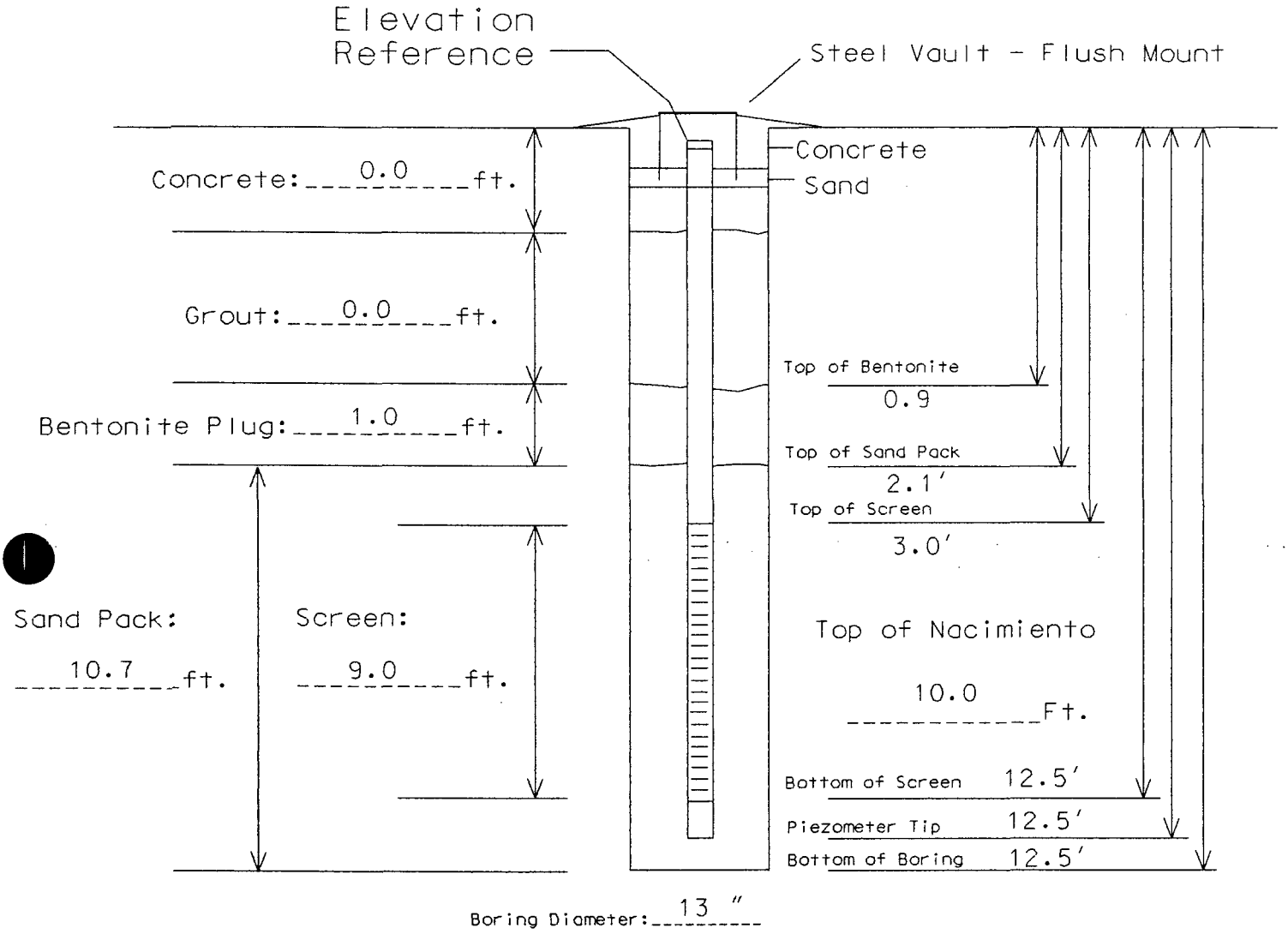
Installation Diagram

Monitoring Well No. CW 5+50



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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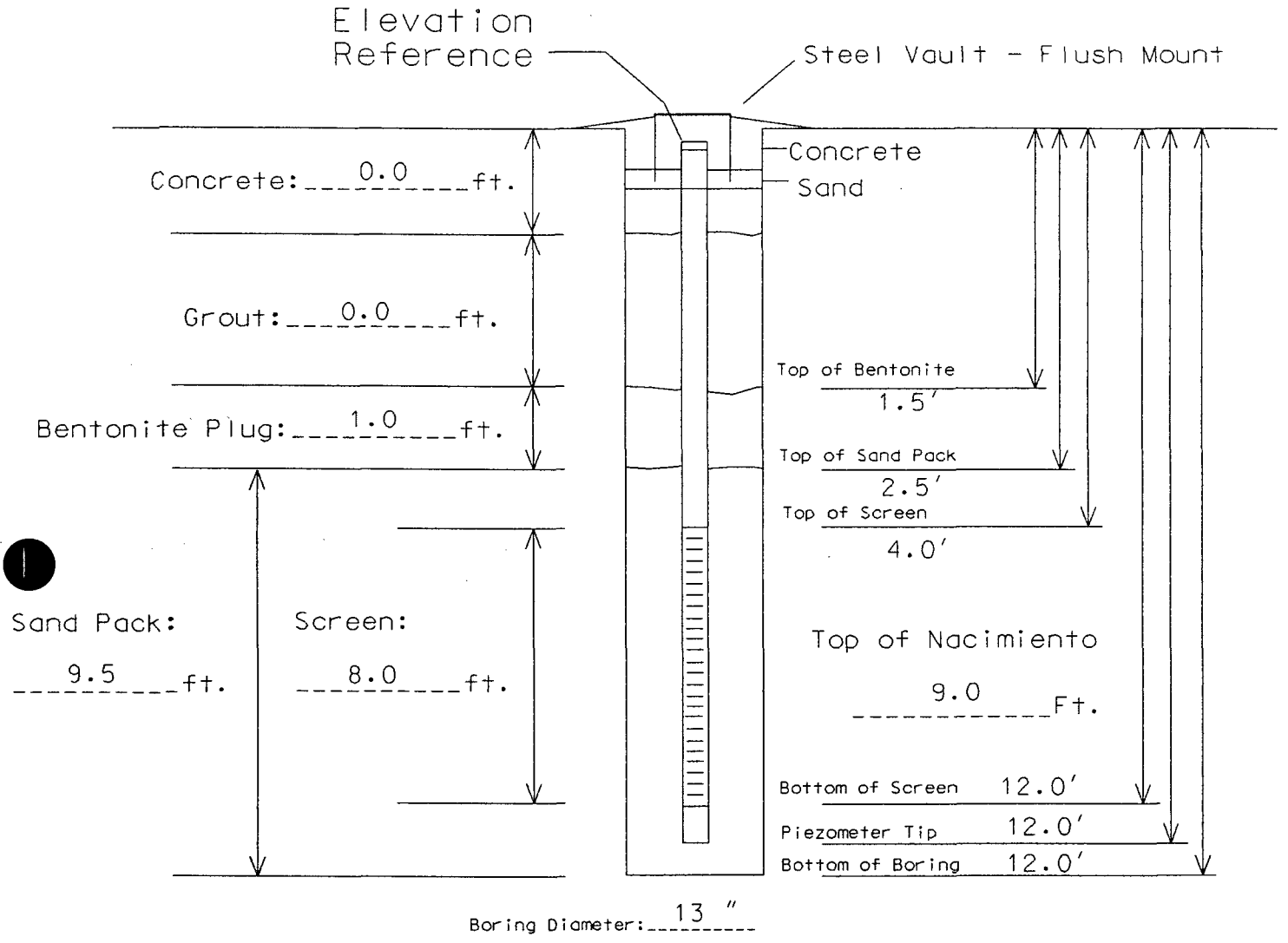
505-523-7674

Installation Diagram

Monitoring Well No. CW 6+70



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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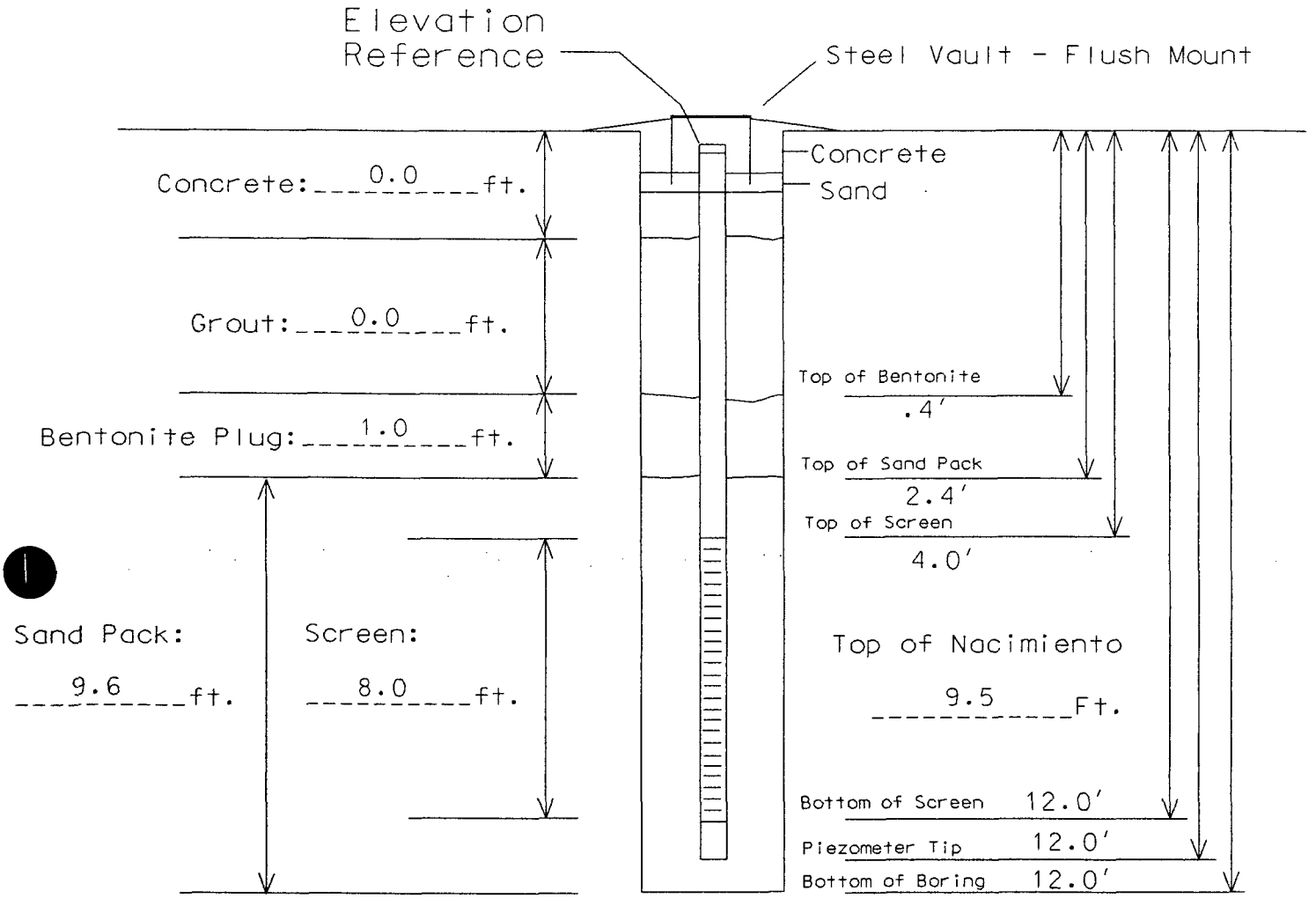
Installation Diagram

Monitoring Well No. CW 8+10



Boring Diameter: 13 "

Sand Type: 10-20Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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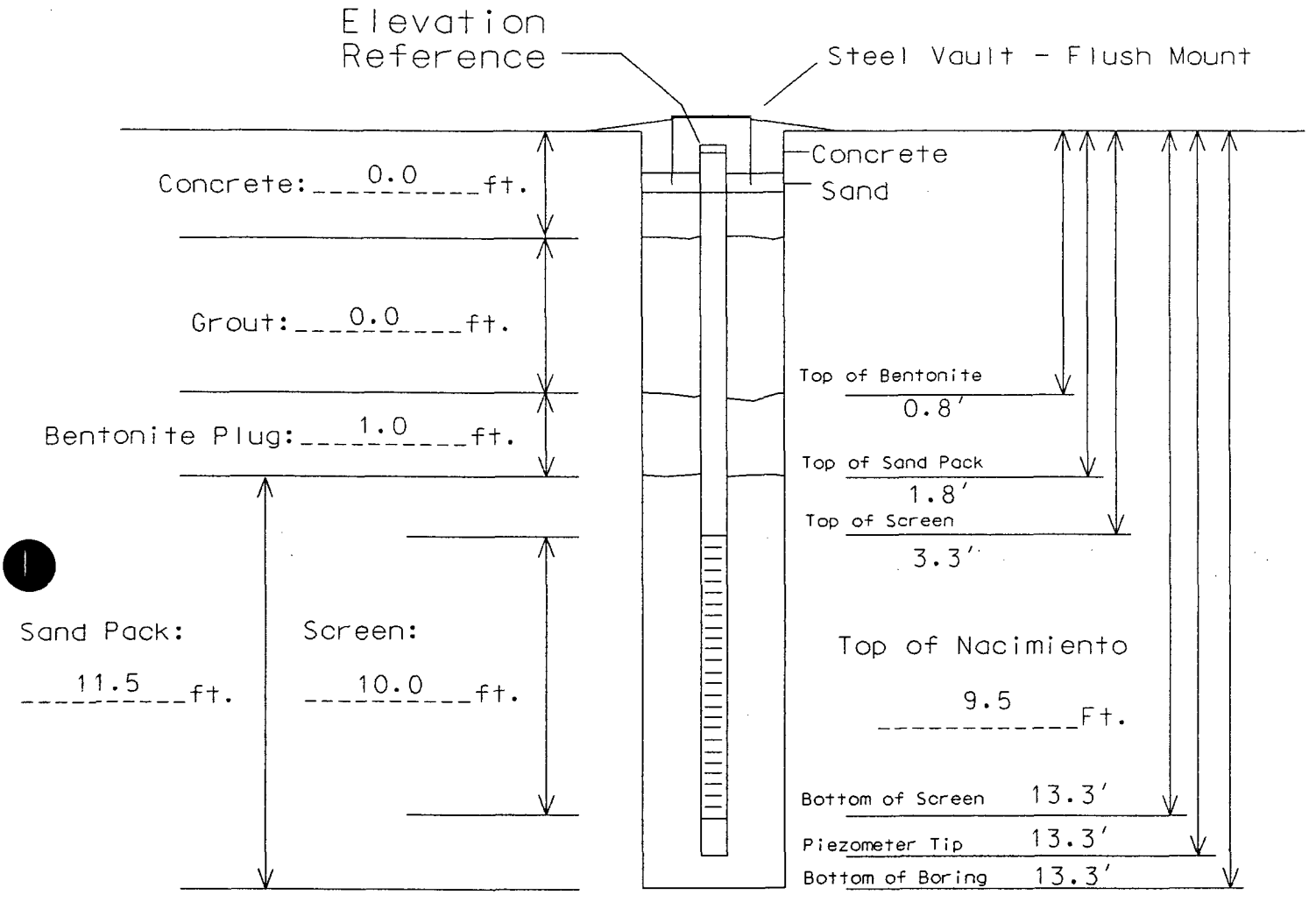
Installation Diagram

Monitoring Well No. CW 8+45



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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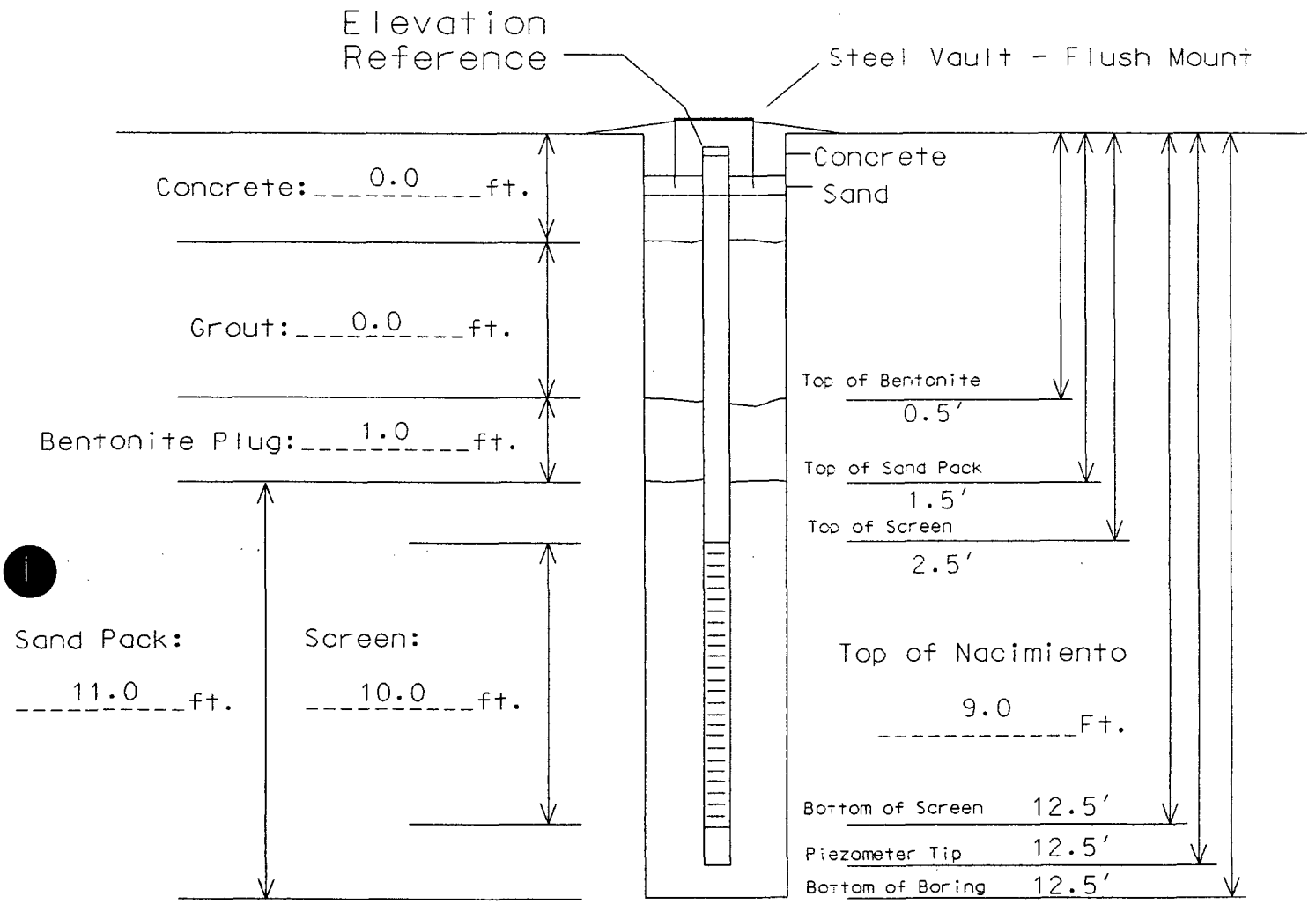
505-523-7674

Installation Diagram

Monitoring Well No. CW 11+15



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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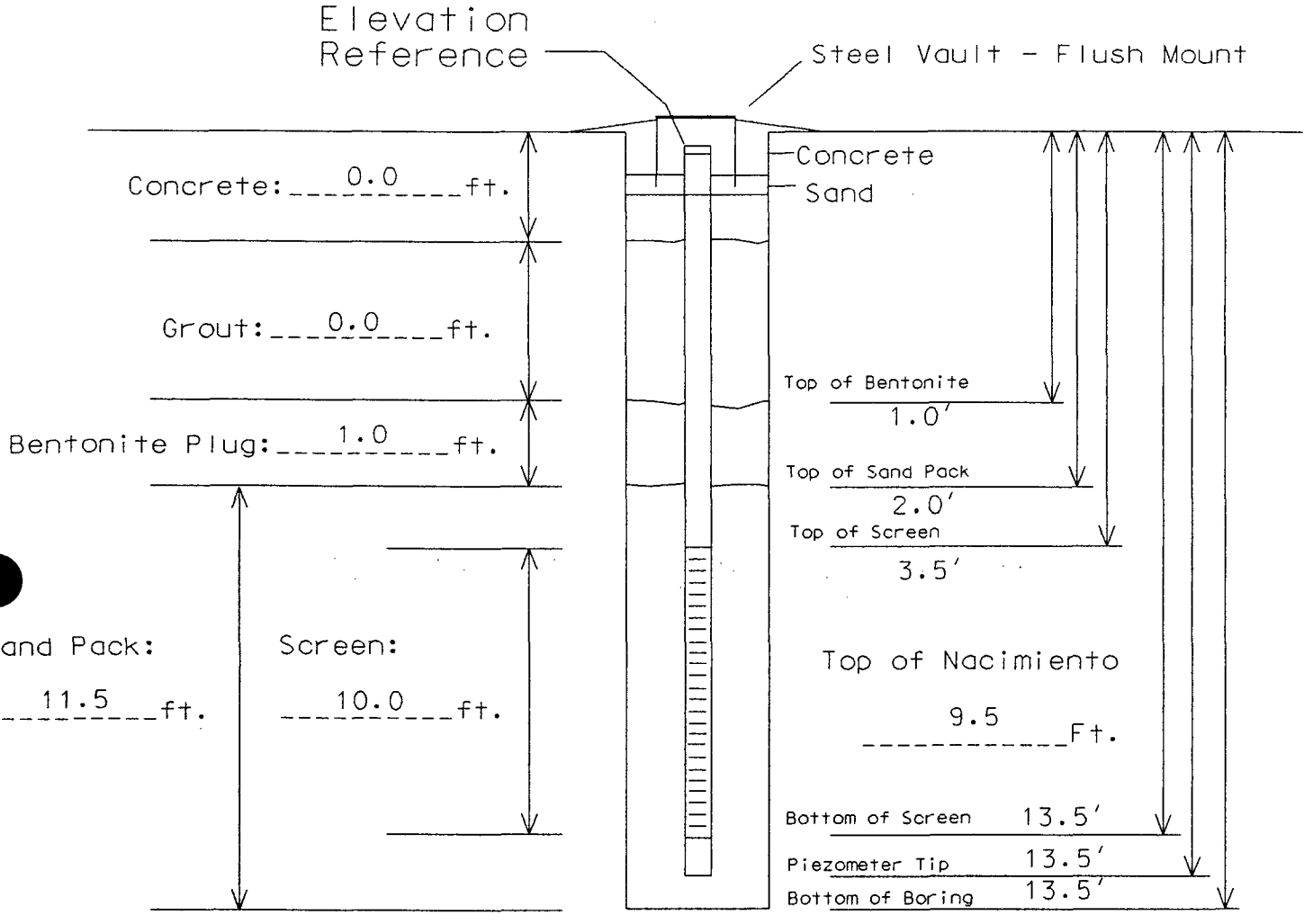
Installation Diagram

Monitoring Well No. CW 14+10



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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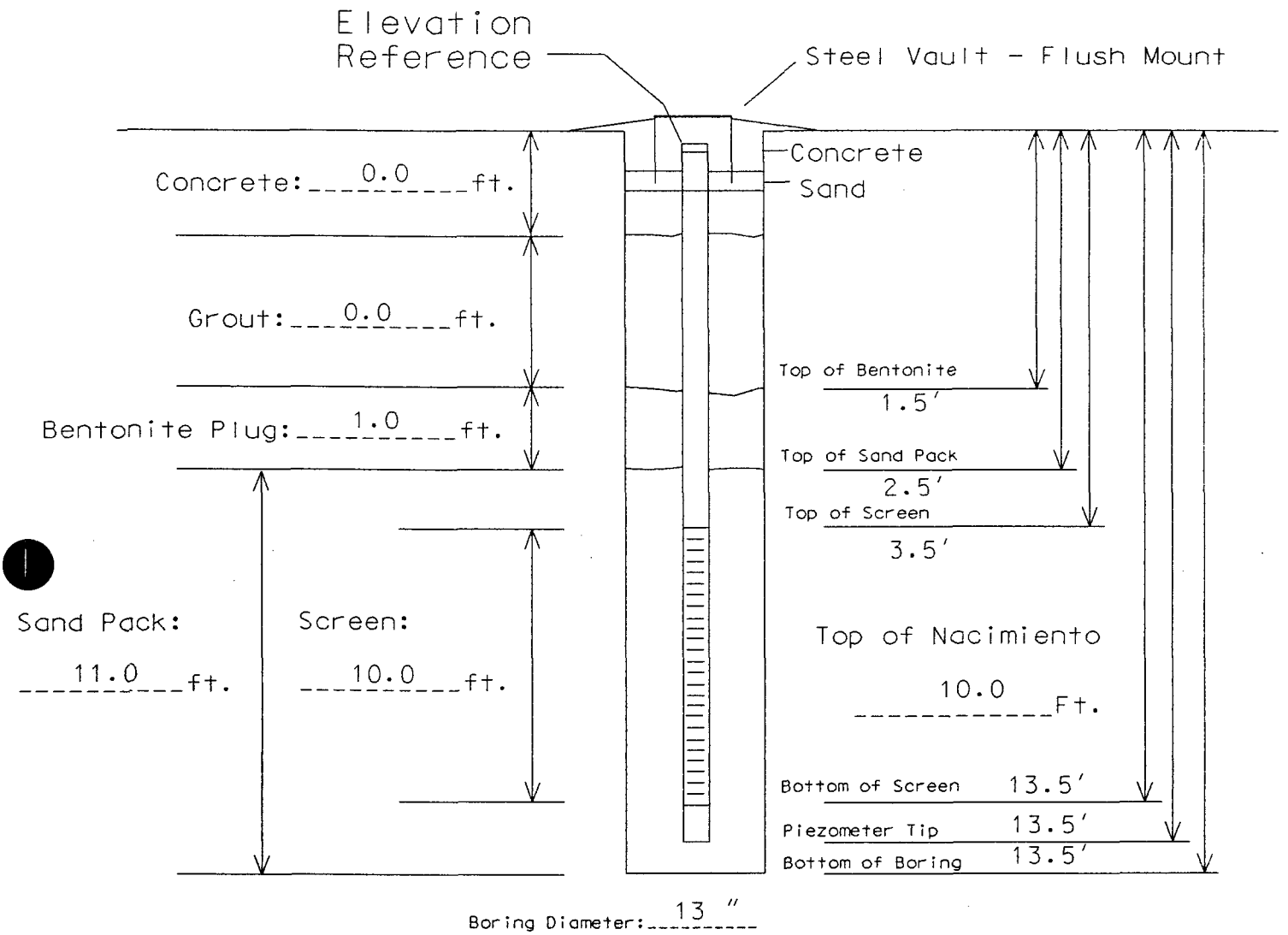
Installation Diagram

Monitoring Well No. CW 16+60



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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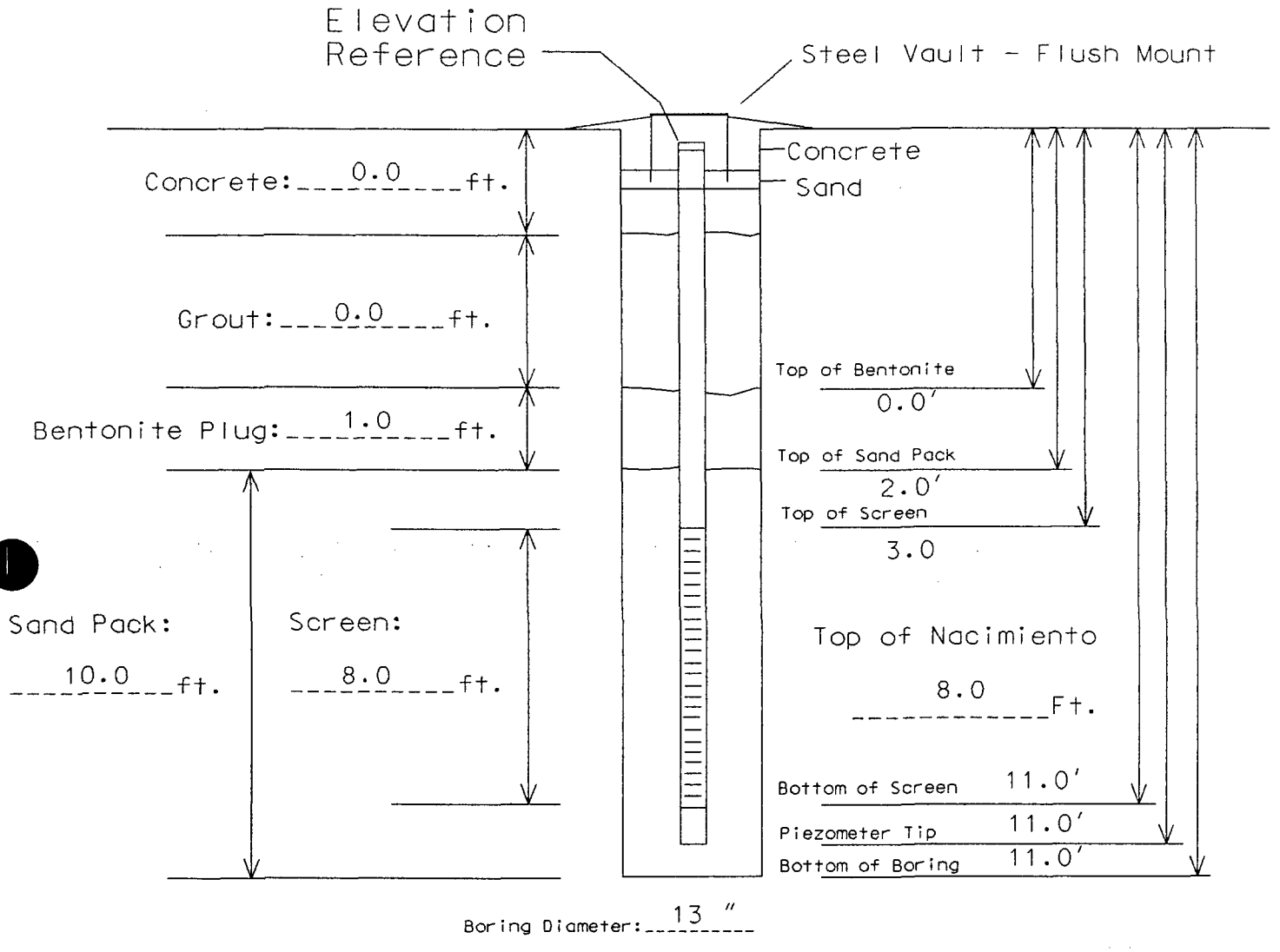
Installation Diagram

Monitoring Well No. CW 19+50



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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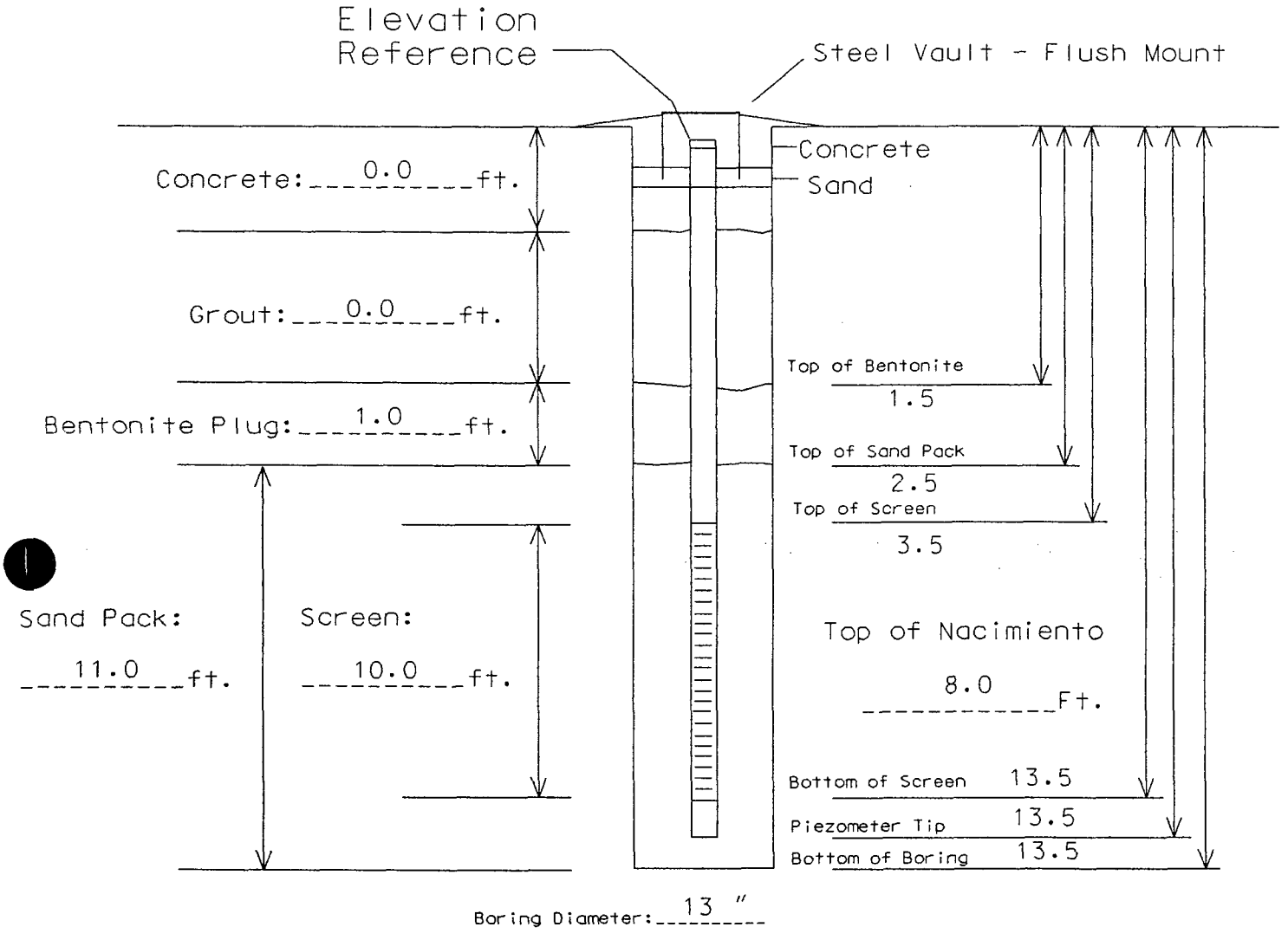
505-523-7674

Installation Diagram

Monitoring Well No. CW 22+00



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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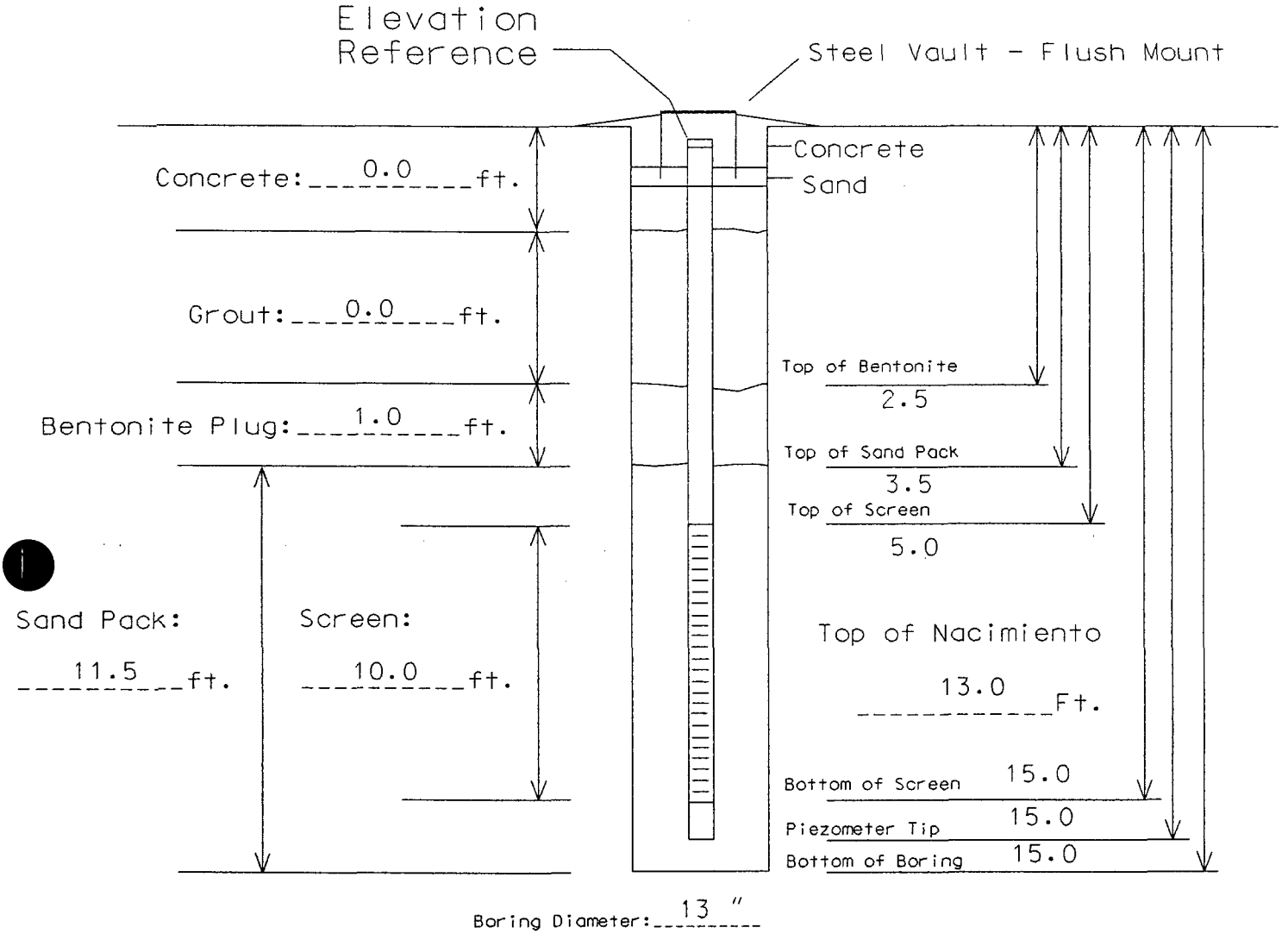
505-523-7674

Installation Diagram

Monitoring Well No. CW 23+10



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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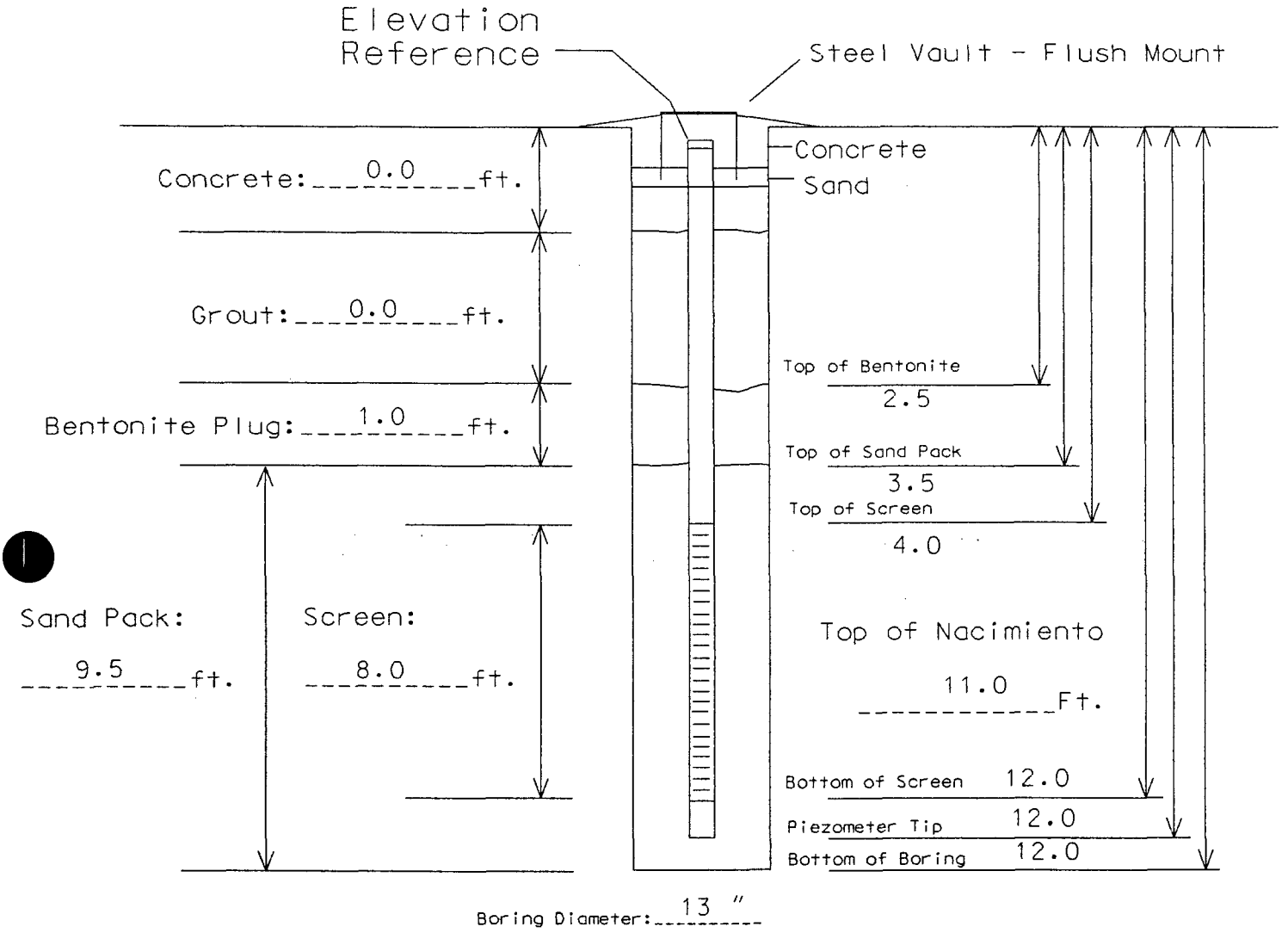
Installation Diagram

Monitoring Well No. CW 23+90



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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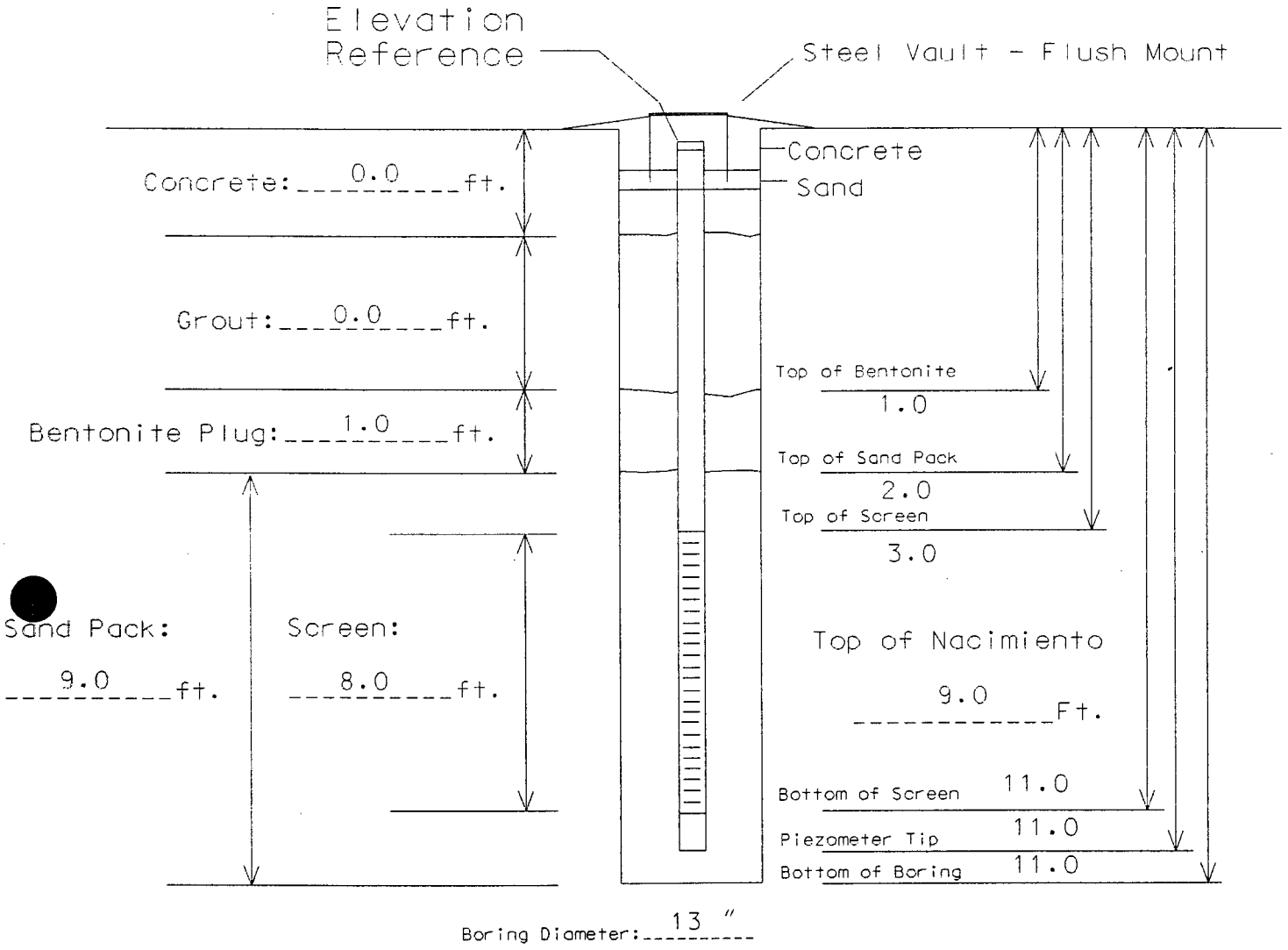
Installation Diagram

Monitoring Well No. CW 25+95



Boring Diameter: 13 "

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 6" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 6" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

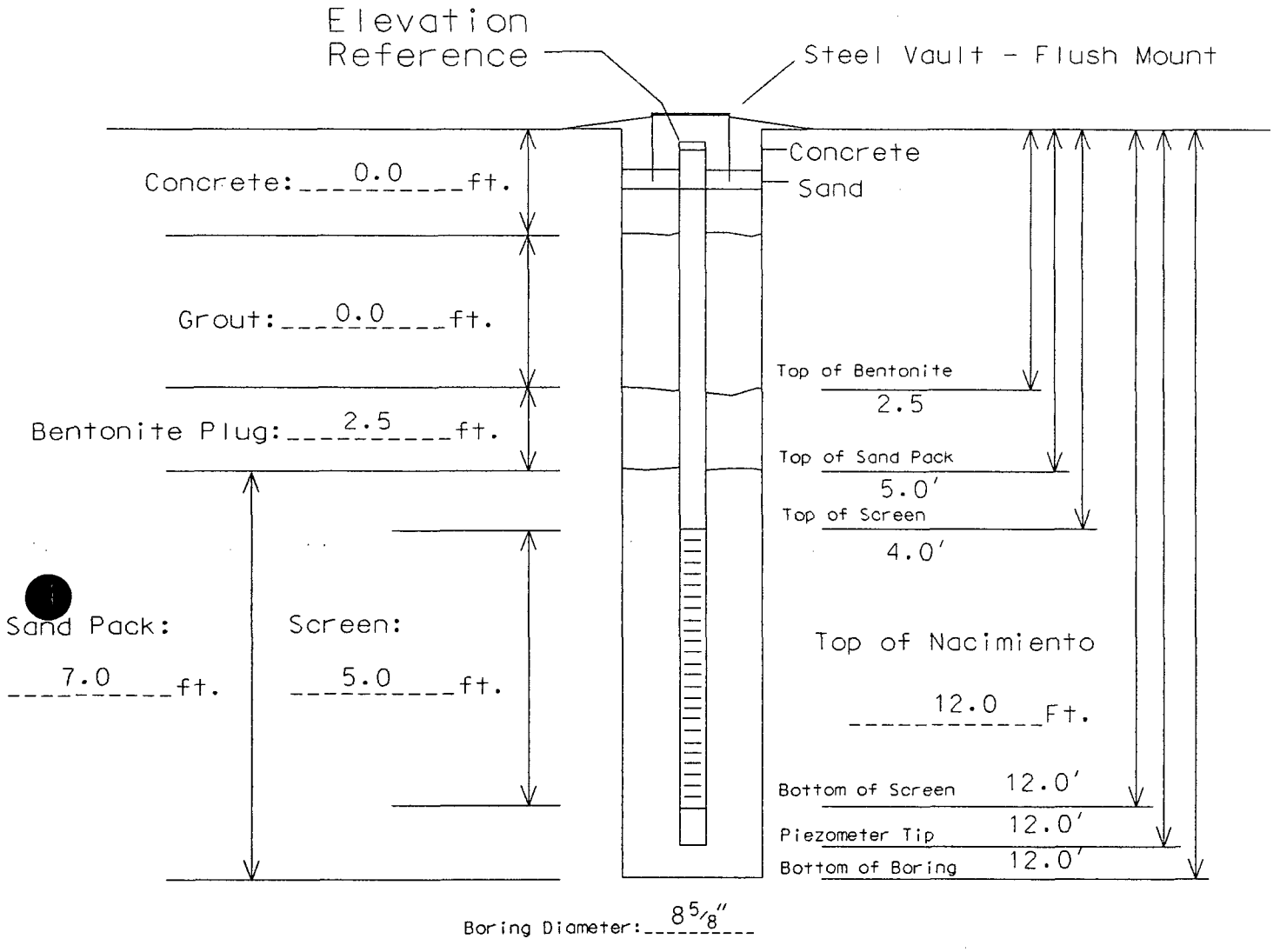
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 0+60



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

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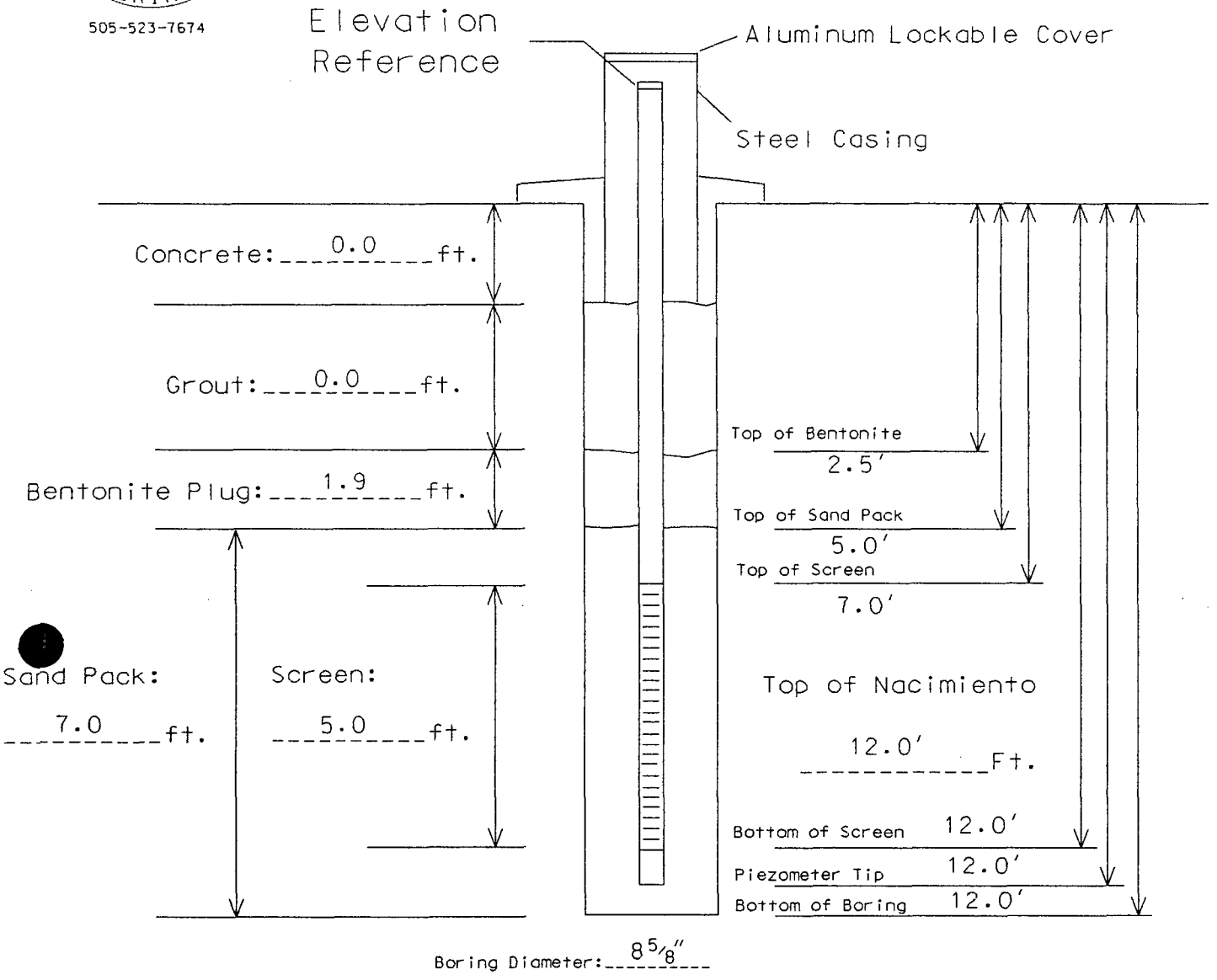
Installation Diagram

Monitoring Well No. OW 1+50



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

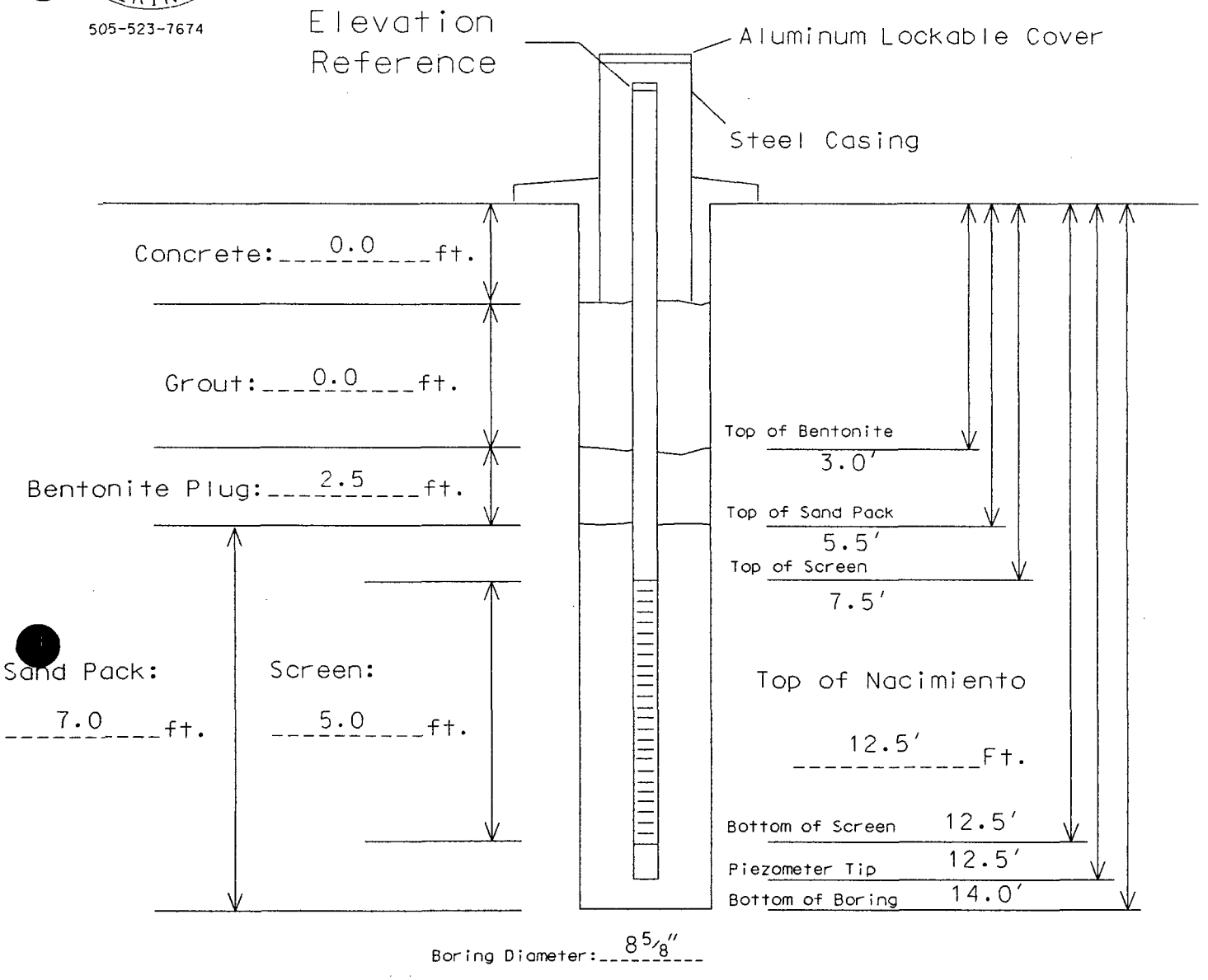
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 3+85



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

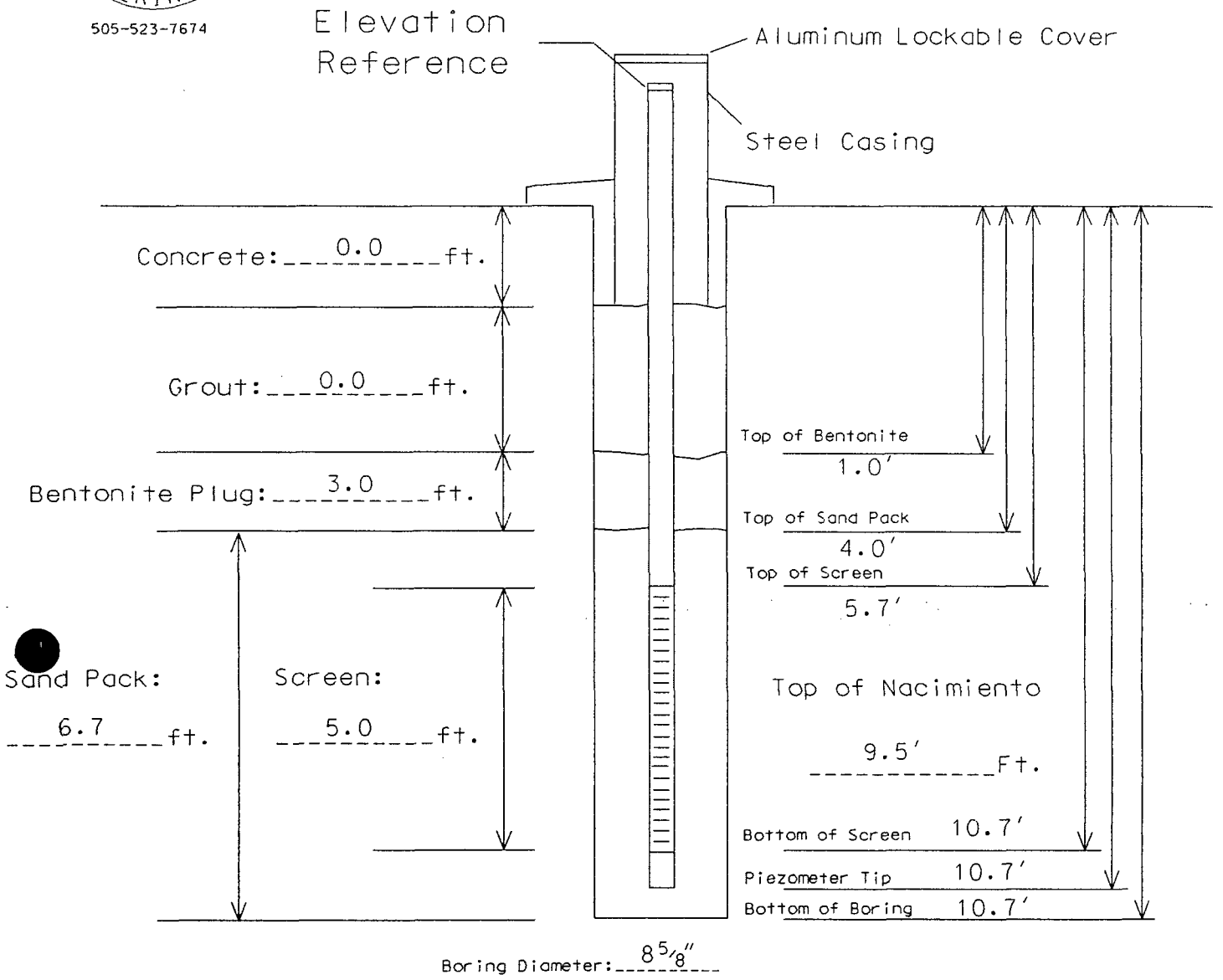
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 5+50



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

PRECISION ENGINEERING, INC.

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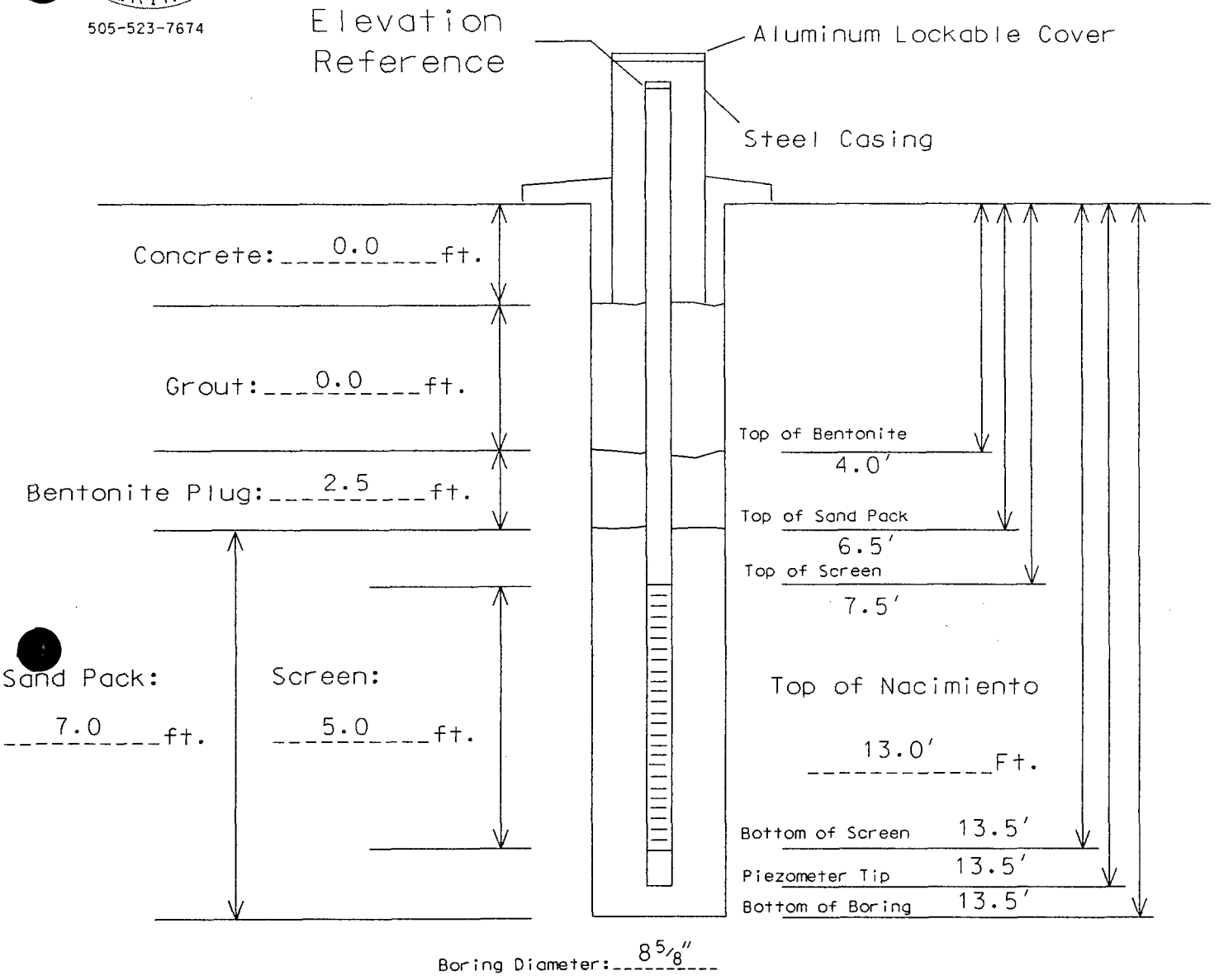
Installation Diagram

Monitoring Well No. OW 6+70



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

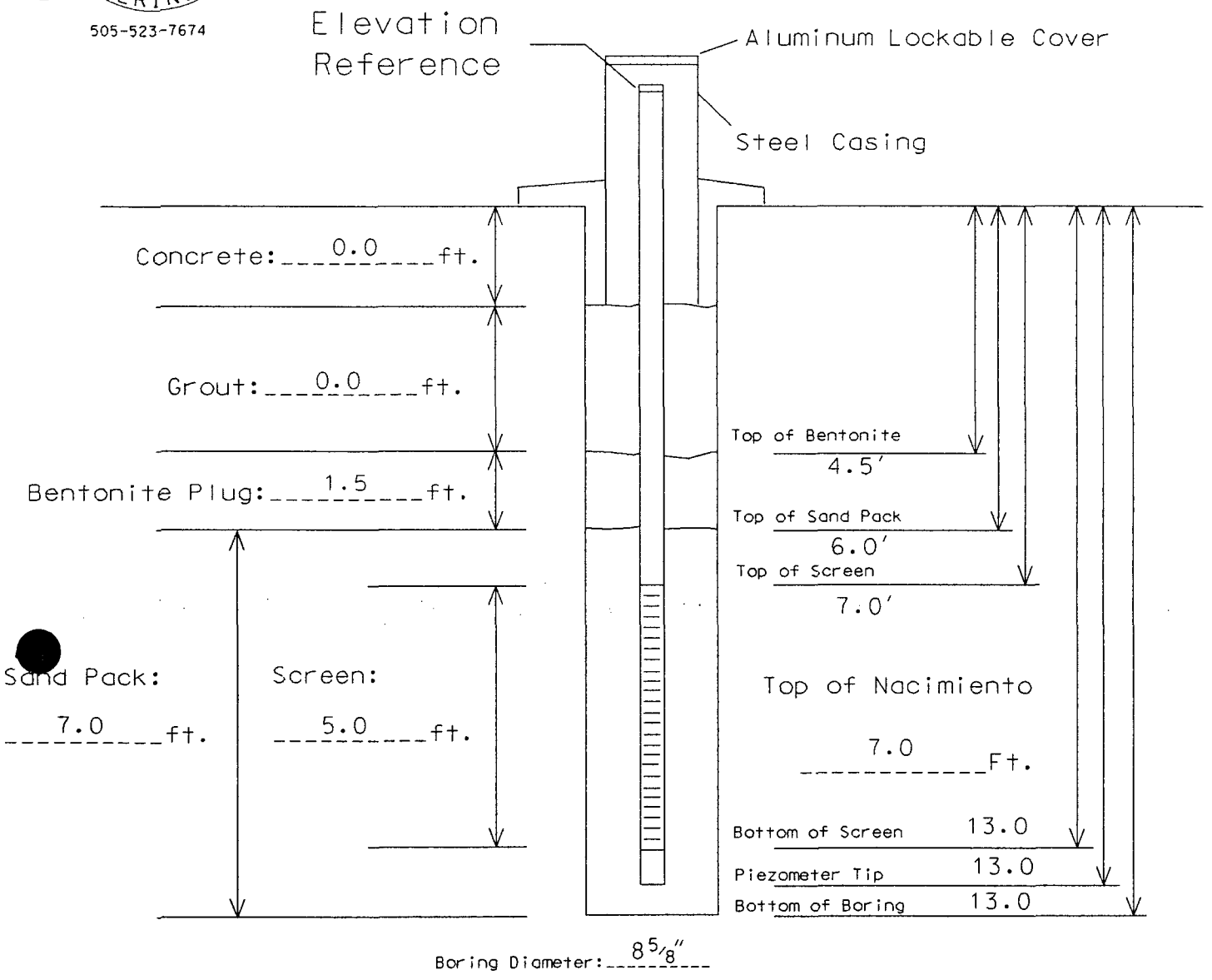
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 8+10



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40. 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

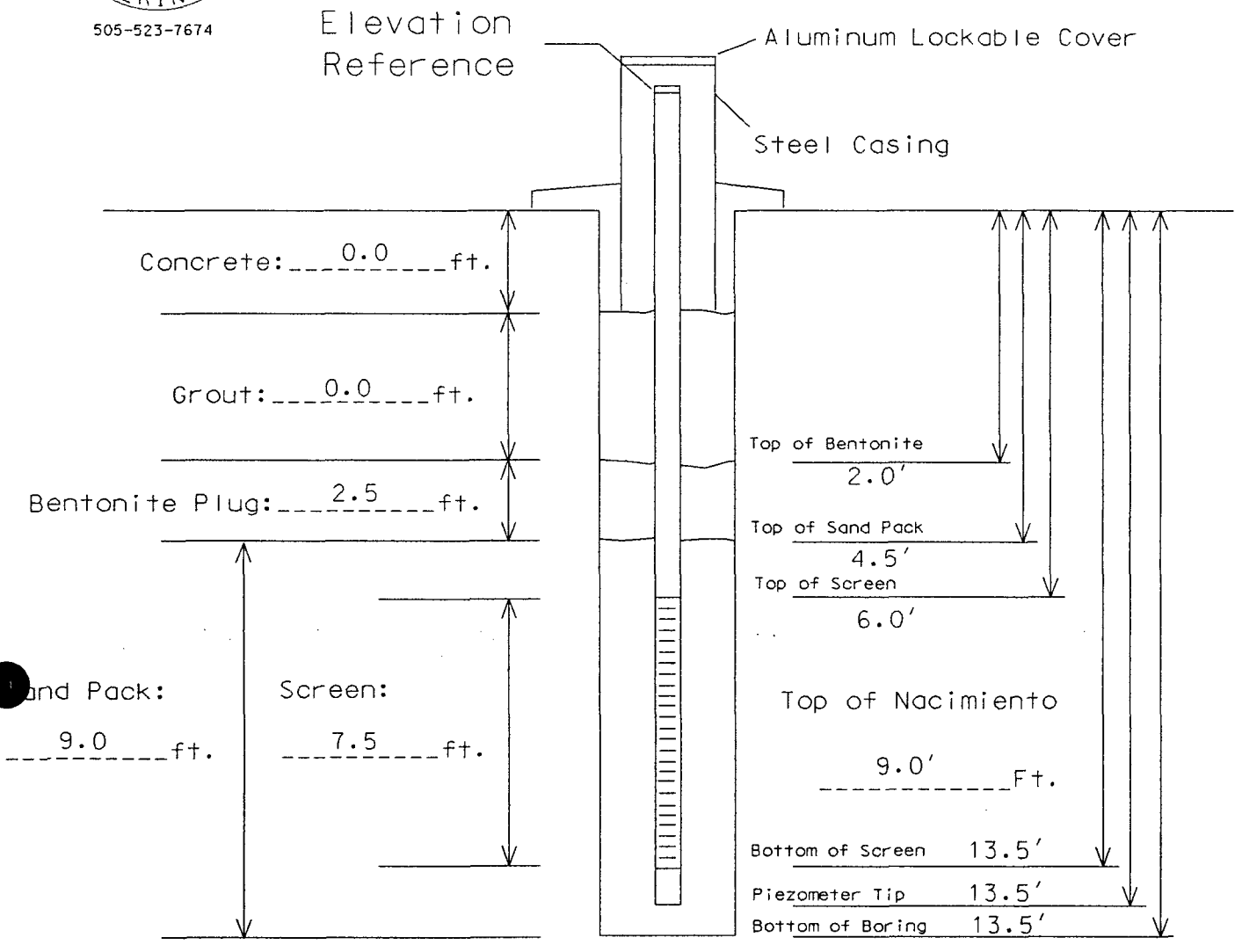
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 11+15



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

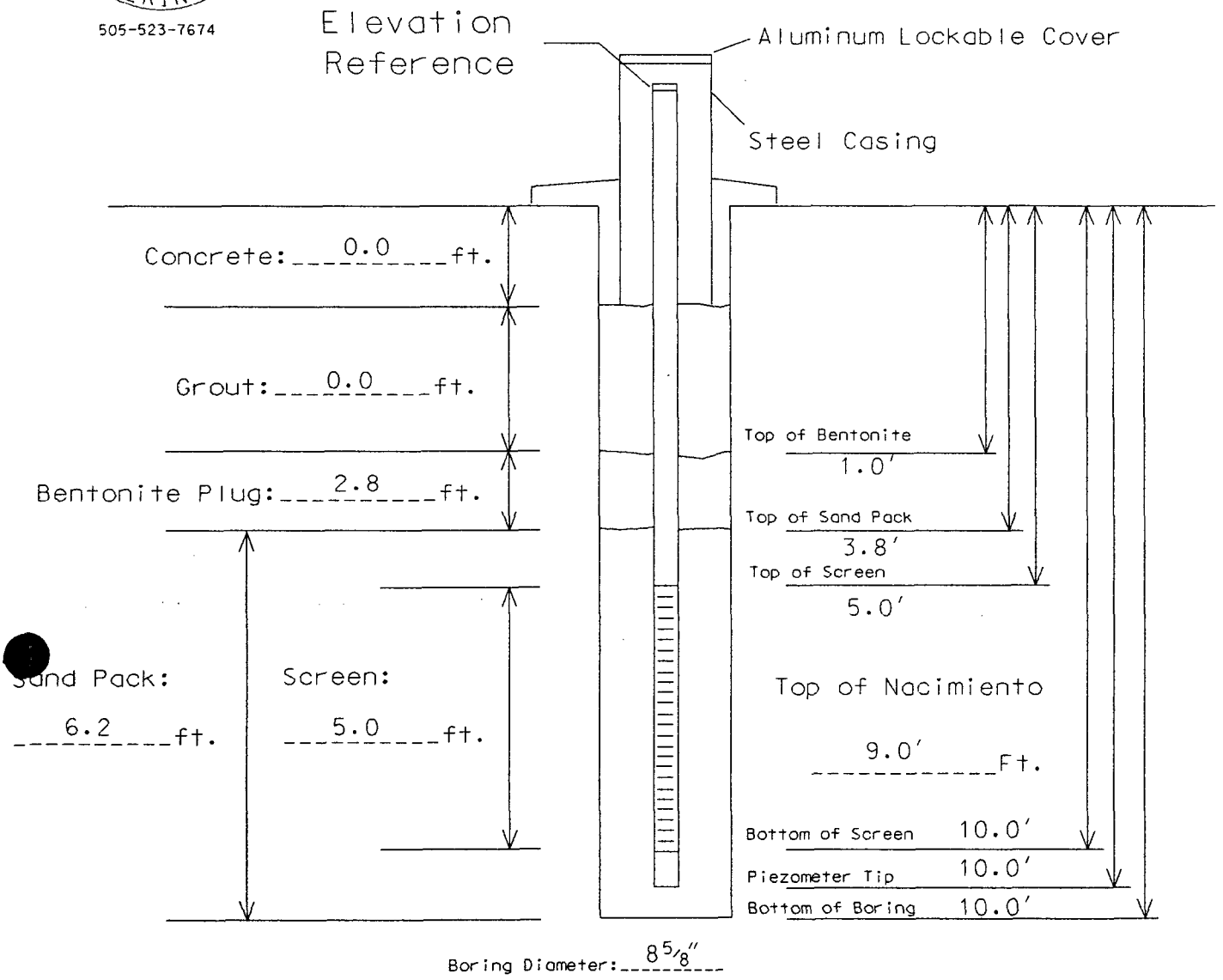
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 14+10



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40. 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

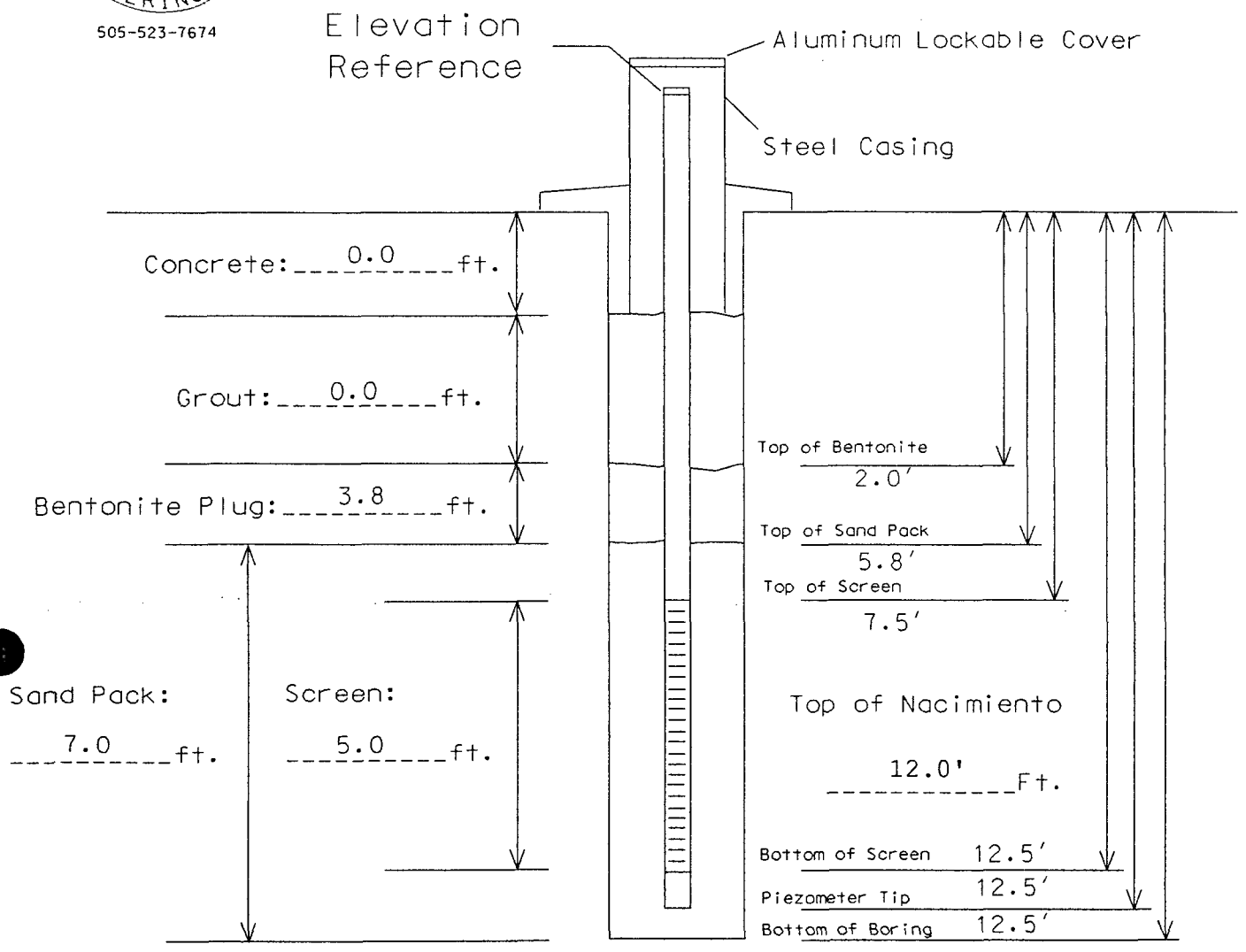
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 16+60



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

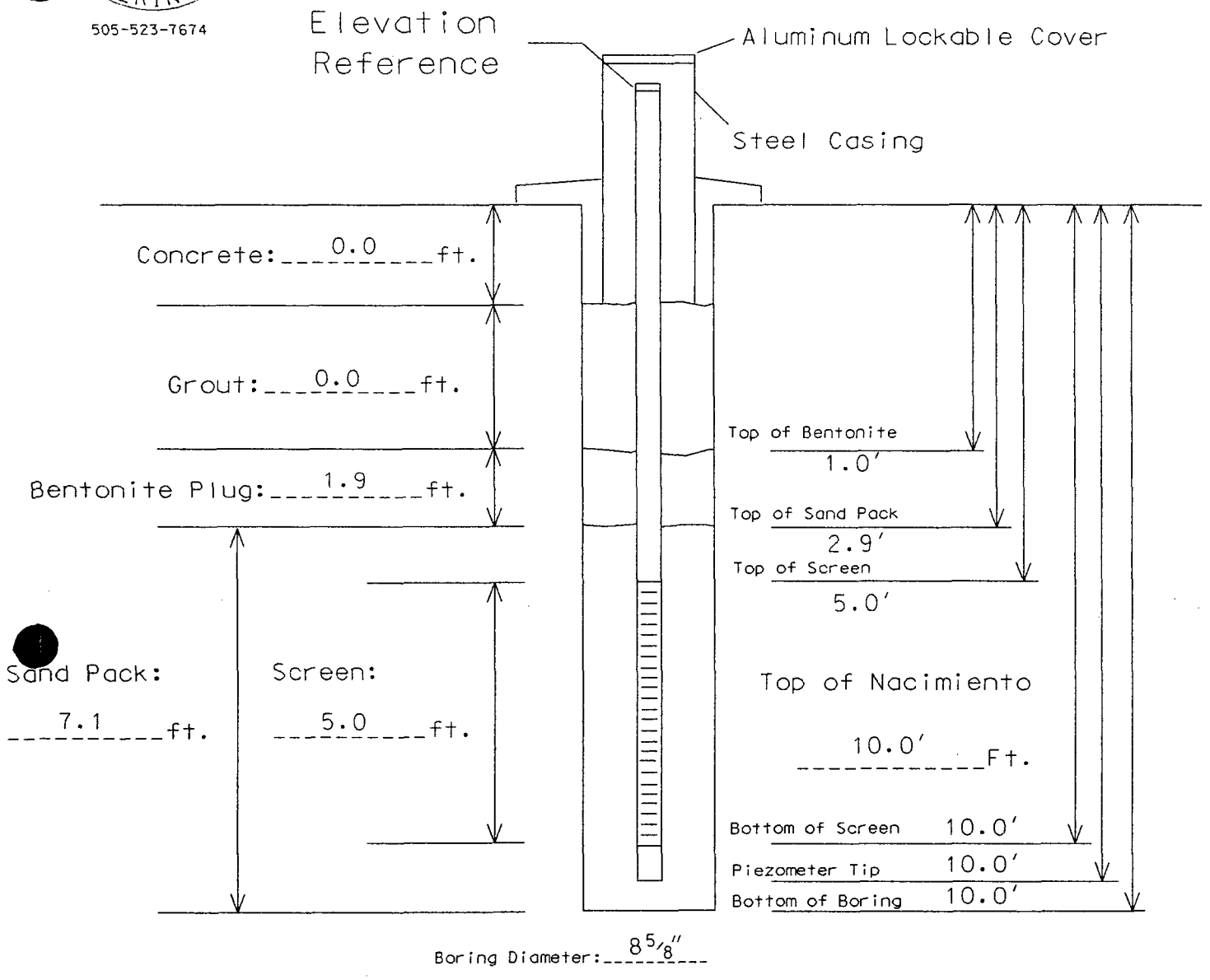
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 19+50



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

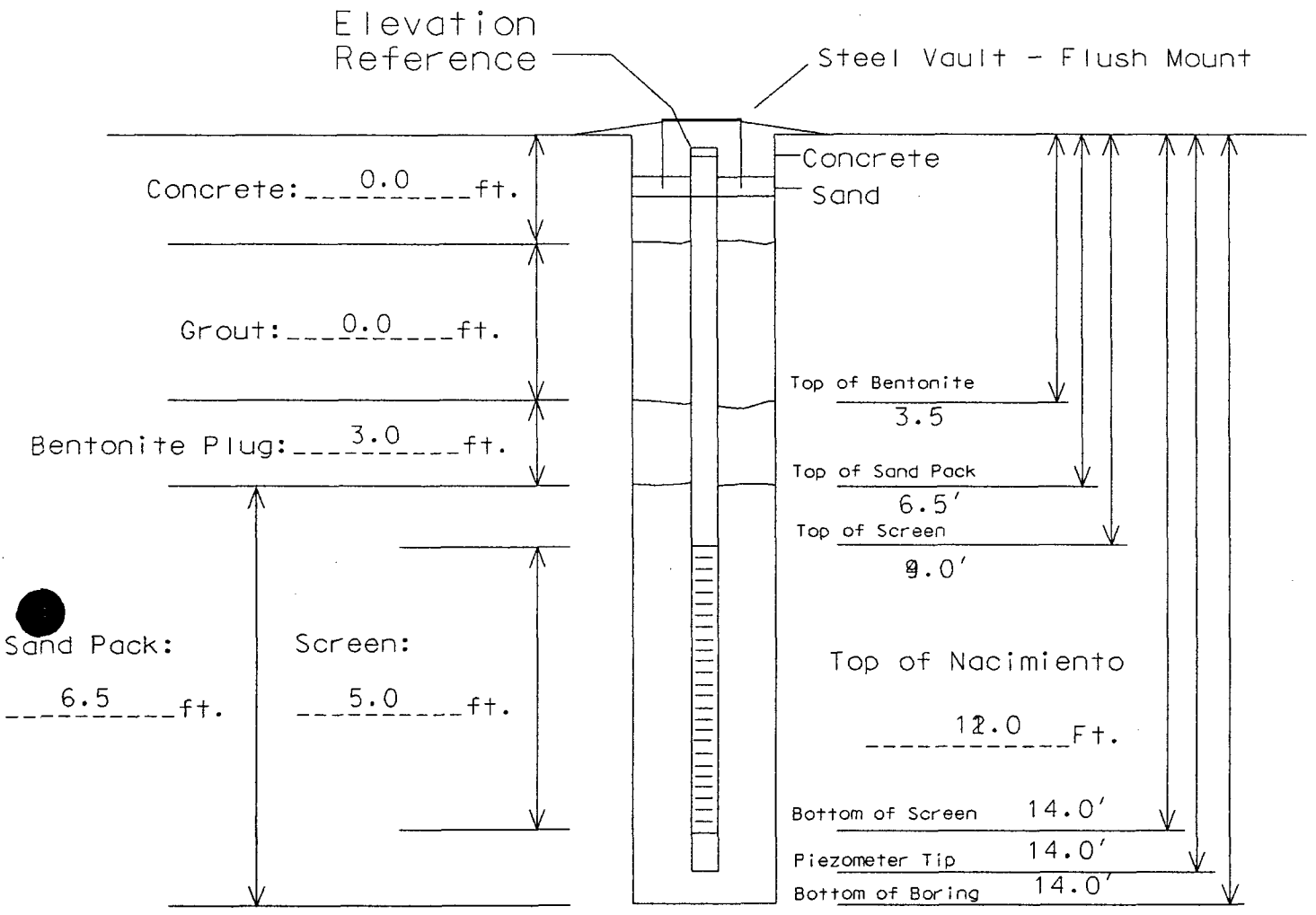
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 22+00



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.40" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

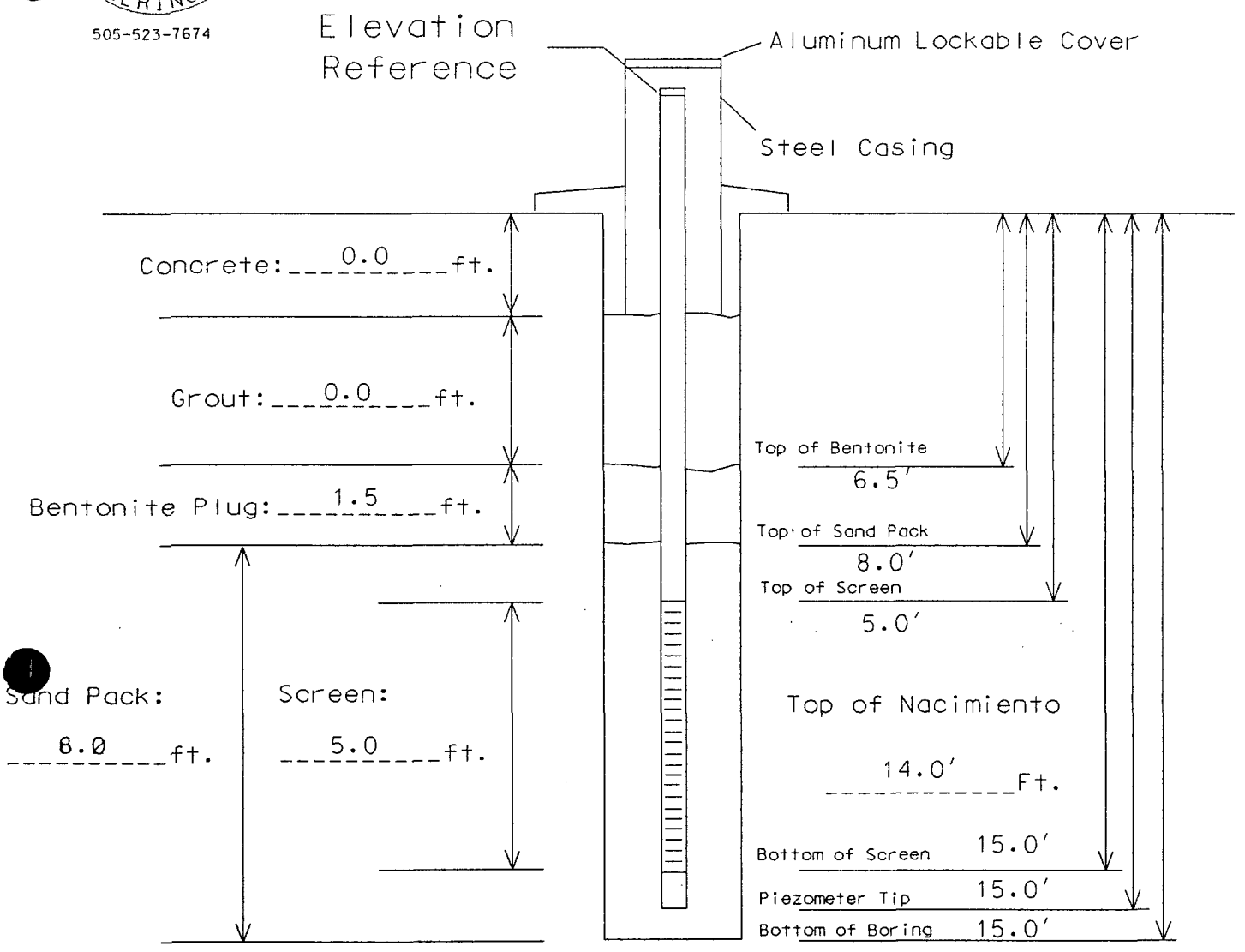
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 23+10



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

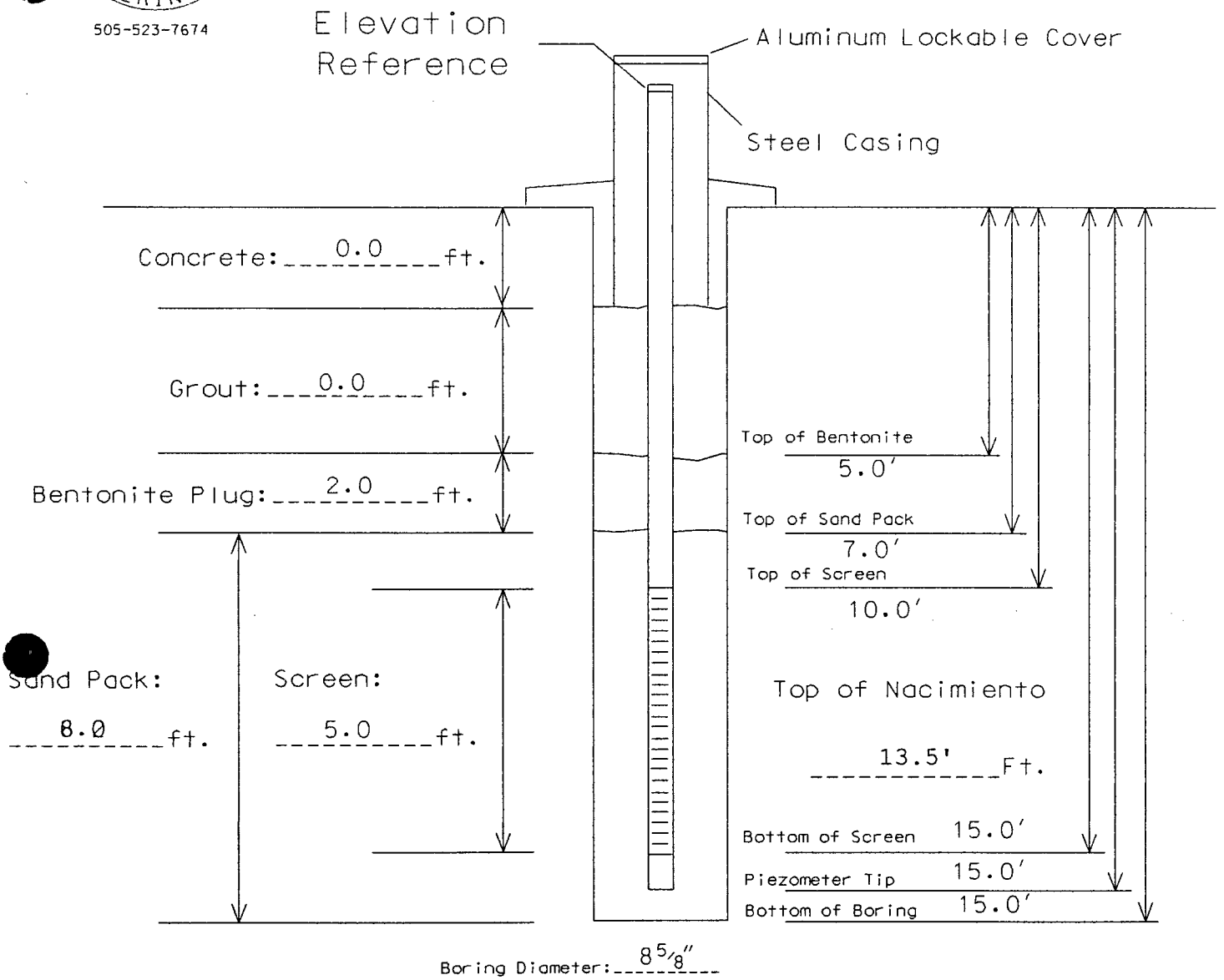
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 23+90



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards, Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

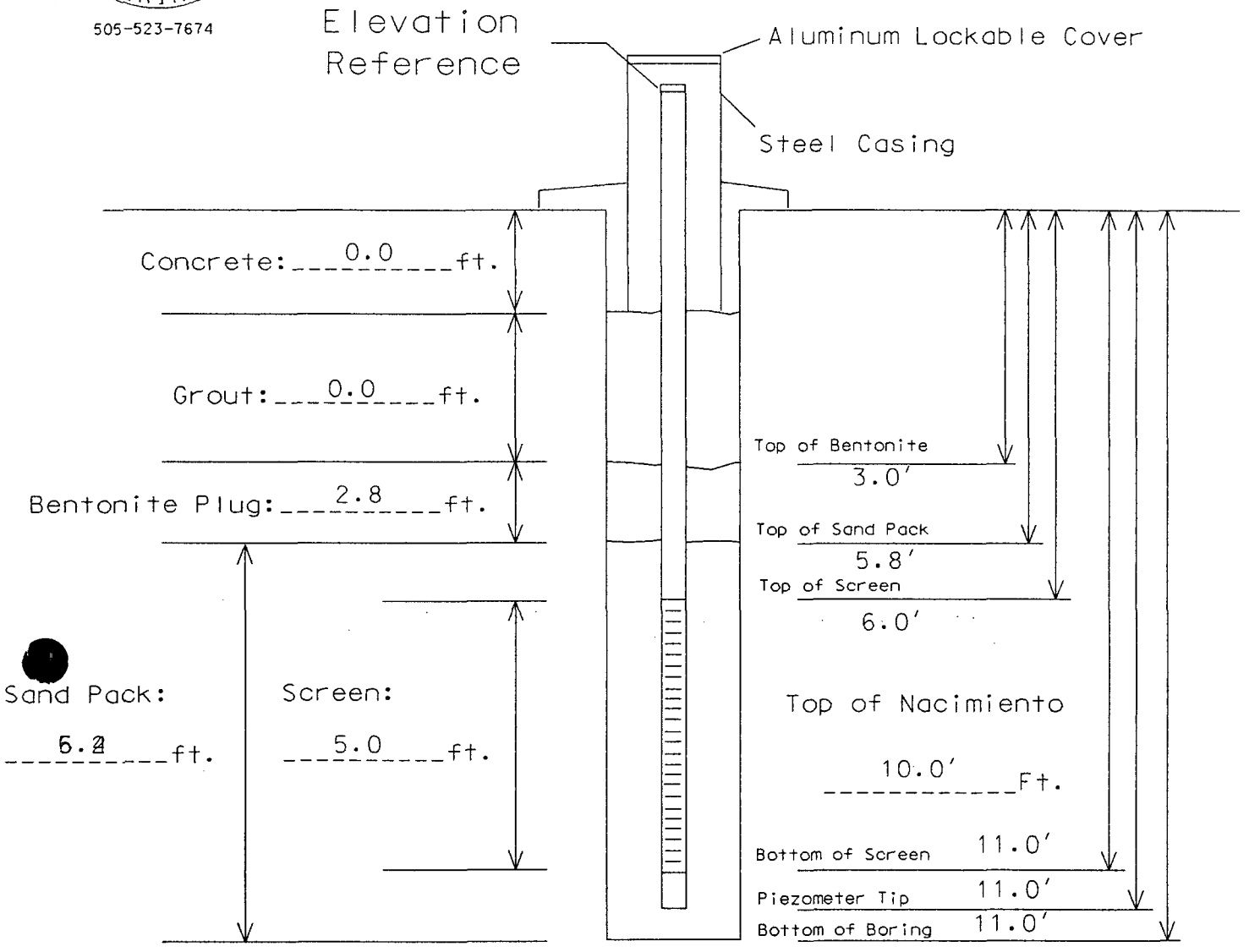
Elevation: TBS

PRECISION ENGINEERING, INC.

505-523-7674

Installation Diagram

Monitoring Well No. OW 25+70



Boring Diameter: 8 5/8"

Sand Type: 10-20 Silica

Bollards. Type/Size: NA

Bentonite: 3/8" Chips

Screen Type/Size: 2" PVC Sch. 40, 0.010" Slotted

Cement/Grout: NA

Riser Type/Size: 2" PVC Sch. 40

Water: Potable

Locking Expandable Casing Plug? Yes

Site Northing: TBS

Bottom Cap Used? Yes

Site Easting: TBS

Other:

Project #: 05-038

Project Name: Bloomfield Refinery

Elevation: TBS

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

May 27, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: Phase II Monitoring

Order No.: 0505104

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 7 samples on 5/12/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Lab Order: 0505104
Project: Phase II Monitoring
Lab ID: 0505104-01

Client Sample ID: CW 6 + 70
Collection Date: 5/11/2005 9:15:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	ND	0.50		mg/L	5	5/24/2005
Chloride	2400	10		mg/L	100	5/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/12/2005
Sulfate	170	2.5		mg/L	5	5/24/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/24/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	2.7	0.50		µg/L	1	5/16/2005 4:54:42 PM
Toluene	ND	0.50		µg/L	1	5/16/2005 4:54:42 PM
Ethylbenzene	ND	0.50		µg/L	1	5/16/2005 4:54:42 PM
Xylenes, Total	1.3	0.50		µg/L	1	5/16/2005 4:54:42 PM
Surr: 4-Bromofluorobenzene	100	83.3-121		%REC	1	5/16/2005 4:54:42 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 2:09:29 PM
Barium	0.34	0.020		mg/L	1	5/16/2005 2:09:29 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 2:09:29 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 2:09:29 PM
Lead	ND	0.0050		mg/L	1	5/16/2005 2:09:29 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 2:09:29 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 2:09:29 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 8 + 10
Lab Order: 0505104
Collection Date: 5/11/2005 10:30:00 AM
Project: Phase II Monitoring
Lab ID: 0505104-02
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	0.29	0.10		mg/L	1	5/24/2005
Chloride	1100	10		mg/L	100	5/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/12/2005
Sulfate	720	50		mg/L	100	5/24/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/24/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	430	25		µg/L	50	5/16/2005 5:26:08 PM
Toluene	ND	25		µg/L	50	5/16/2005 5:26:08 PM
Ethylbenzene	51	25		µg/L	50	5/16/2005 5:26:08 PM
Xylenes, Total	660	25		µg/L	50	5/16/2005 5:26:08 PM
Surr: 4-Bromofluorobenzene	102	83.3-121		%REC	50	5/16/2005 5:26:08 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 2:13:35 PM
Barium	0.49	0.020		mg/L	1	5/16/2005 2:13:35 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 2:13:35 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 2:13:35 PM
Lead	ND	0.0050		mg/L	1	5/16/2005 2:13:35 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 2:13:35 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 2:13:35 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 11 + 15
Lab Order: 0505104
Collection Date: 5/11/2005 11:45:00 AM
Project: Phase II Monitoring
Lab ID: 0505104-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	0.43	0.10		mg/L	1	5/24/2005
Chloride	320	5.0		mg/L	50	5/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/12/2005
Sulfate	130	5.0		mg/L	10	5/24/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/24/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	420	25		µg/L	50	5/16/2005 5:57:32 PM
Toluene	ND	25		µg/L	50	5/16/2005 5:57:32 PM
Ethylbenzene	140	25		µg/L	50	5/16/2005 5:57:32 PM
Xylenes, Total	520	25		µg/L	50	5/16/2005 5:57:32 PM
Surr: 4-Bromofluorobenzene	104	83.3-121		%REC	50	5/16/2005 5:57:32 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	0.037	0.020		mg/L	1	5/16/2005 2:17:47 PM
Barium	1.9	0.20		mg/L	10	5/16/2005 3:06:50 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 2:17:47 PM
Chromium	0.020	0.0060		mg/L	1	5/16/2005 2:17:47 PM
Lead	0.028	0.0050		mg/L	1	5/16/2005 2:17:47 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 2:17:47 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 2:17:47 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 14 + 10
Lab Order: 0505104
Collection Date: 5/11/2005 1:45:00 PM
Project: Phase II Monitoring
Lab ID: 0505104-04
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	2.1	0.10		mg/L	1	5/24/2005
Chloride	78	2.0		mg/L	20	5/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/12/2005
Sulfate	2300	25		mg/L	50	5/27/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	9800	25		µg/L	50	5/16/2005 6:28:57 PM
Toluene	ND	25		µg/L	50	5/16/2005 6:28:57 PM
Ethylbenzene	2100	25		µg/L	50	5/16/2005 6:28:57 PM
Xylenes, Total	1300	25		µg/L	50	5/16/2005 6:28:57 PM
Surr: 4-Bromofluorobenzene	108	83.3-121		%REC	50	5/16/2005 6:28:57 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.10		mg/L	5	5/16/2005 3:09:42 PM
Barium	0.33	0.10		mg/L	5	5/16/2005 3:09:42 PM
Cadmium	ND	0.010		mg/L	5	5/16/2005 3:09:42 PM
Chromium	ND	0.030		mg/L	5	5/16/2005 3:09:42 PM
Lead	ND	0.025		mg/L	5	5/16/2005 3:09:42 PM
Selenium	ND	0.25		mg/L	5	5/16/2005 3:09:42 PM
Silver	ND	0.025		mg/L	5	5/16/2005 3:09:42 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 14 + 10
Lab Order: 0505104
Collection Date: 5/11/2005 2:15:00 PM
Project: Phase II Monitoring
Lab ID: 0505104-05
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	0.53	0.10		mg/L	1	5/24/2005
Chloride	73	2.0		mg/L	20	5/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/12/2005
Sulfate	350	10		mg/L	20	5/24/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	10000	50		µg/L	100	5/16/2005 8:02:40 PM
Toluene	ND	50		µg/L	100	5/16/2005 8:02:40 PM
Ethylbenzene	3900	50		µg/L	100	5/16/2005 8:02:40 PM
Xylenes, Total	3200	50		µg/L	100	5/16/2005 8:02:40 PM
Surr: 4-Bromofluorobenzene	106	83.3-121		%REC	100	5/16/2005 8:02:40 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	0.11	0.020		mg/L	1	5/16/2005 2:30:31 PM
Barium	11	0.40		mg/L	20	5/16/2005 3:35:50 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 2:30:31 PM
Chromium	0.090	0.0060		mg/L	1	5/16/2005 2:30:31 PM
Lead	0.73	0.0050		mg/L	1	5/16/2005 2:30:31 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 2:30:31 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 2:30:31 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Lab Order: 0505104
Project: Phase II Monitoring
Lab ID: 0505104-06

Client Sample ID: CW 16 + 60
Collection Date: 5/11/2005 3:00:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	0.42	0.10		mg/L	1	5/24/2005
Chloride	150	2.0		mg/L	20	5/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/12/2005
Sulfate	150	10		mg/L	20	5/24/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	5300	25		µg/L	50	5/16/2005 8:33:39 PM
Toluene	75	25		µg/L	50	5/16/2005 8:33:39 PM
Ethylbenzene	3800	25		µg/L	50	5/16/2005 8:33:39 PM
Xylenes, Total	7300	25		µg/L	50	5/16/2005 8:33:39 PM
Surr: 4-Bromofluorobenzene	106	83.3-121		%REC	50	5/16/2005 8:33:39 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 3:18:45 PM
Barium	0.60	0.020		mg/L	1	5/16/2005 3:18:45 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 3:18:45 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 3:18:45 PM
Lead	0.010	0.0050		mg/L	1	5/16/2005 3:18:45 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 3:18:45 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 3:18:45 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: Trip Blank
Lab Order: 0505104
Collection Date:
Project: Phase II Monitoring
Lab ID: 0505104-07
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		µg/L	1	5/16/2005 9:04:43 PM
Toluene	ND	0.50		µg/L	1	5/16/2005 9:04:43 PM
Ethylbenzene	ND	0.50		µg/L	1	5/16/2005 9:04:43 PM
Xylenes, Total	ND	0.50		µg/L	1	5/16/2005 9:04:43 PM
Surr: 4-Bromofluorobenzene	98.2	83.3-121		%REC	1	5/16/2005 9:04:43 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MBLK** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **361746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MB** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **361769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MB** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/14/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **362063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1	0	0	0	0	0	0			
Chloride	ND	0.1	0	0	0	0	0	0			
Phosphorus, Orthophosphate (As P)	ND	0.5	0	0	0	0	0	0			
Sulfate	0.1124	0.5	0	0	0	0	0	0			J
Nitrate (As N)+Nitrite (As N)	ND	0.1	0	0	0	0	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

1

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MBLK** Batch ID: **R15492** Test Code: **E300** Units: **mg/L** Analysis Date **5/24/2005** Prep Date
Client ID: Run ID: **LC_050524A** SeqNo: **365448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MBLK** Batch ID: **R15502** Test Code: **E300** Units: **mg/L** Analysis Date **5/25/2005** Prep Date
Client ID: Run ID: **LC_050525A** SeqNo: **365704**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MBLK** Batch ID: **R15517** Test Code: **E300** Units: **mg/L** Analysis Date **5/26/2005** Prep Date
Client ID: Run ID: **LC_050526A** SeqNo: **366186**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

9/18

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: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R15402** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/16/2005 7:08:29 AM** Prep Date
Client ID: Run ID: **PIDFID_050516A** SeqNo: **362600**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.29	0	20	0	101	83.3	121	0			

Sample ID **MB-7989** Batch ID: **7989** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/17/2005** Prep Date **5/17/2005**
Client ID: Run ID: **MI-LA254_050517A** SeqNo: **362937**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

Sample ID **MB-7969** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 1:06:22 PM** Prep Date **5/13/2005**
Client ID: Run ID: **ICP_050516B** SeqNo: **362840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	ND	0.005									

10/18

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

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Sample Duplicate

Sample ID **0505104-01B DUP** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date

Client ID: **CW 6 + 70** Run ID: **LC_050512A** SeqNo: **361758**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	ND	0.5	0	0	0	0	0	0	0	20	

Sample ID **0505104-06C DUP** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 3:22:52 PM** Prep Date **5/13/2005**

Client ID: **CW 16 + 60** Run ID: **ICP_050516B** SeqNo: **362863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.01937	0.02	0	0	0	0	0	0	0	30	J
Barium	0.6666	0.02	0	0	0	0	0	0.6004	10.4	30	
Cadmium	ND	0.002	0	0	0	0	0	0	0	30	
Chromium	ND	0.006	0	0	0	0	0	0	0	30	
Lead	0.01333	0.005	0	0	0	0	0	0.01022	26.4	30	
Selenium	ND	0.05	0	0	0	0	0	0	0	30	
Silver	0.0007985	0.005	0	0	0	0	0	0	0	30	J

11/18

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

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **0505104-01B MS** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: **CW 6 + 70** Run ID: **LC_050512A** SeqNo: **361759**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	5.075	0.5	5	0	102	80	120	0			

Sample ID **0505104-01B MSD** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: **CW 6 + 70** Run ID: **LC_050512A** SeqNo: **361760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	4.964	0.5	5	0	99.3	80	120	5.075	2.22	20	

Sample ID **0505104-01a ms** Batch ID: **R15402** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/16/2005 9:35:32 PM** Prep Date
Client ID: **CW 6 + 70** Run ID: **PIDFID_050516A** SeqNo: **362634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.01	0.5	20	2.675	96.7	88.7	114	0			
Toluene	19.67	0.5	20	0.297	96.9	89.3	112	0			
Ethylbenzene	20.06	0.5	20	0.4584	98.0	88.6	113	0			
Xylenes, Total	58.06	0.5	60	1.266	94.7	89.4	112	0			
Surr: 4-Bromofluorobenzene	23.36	0	24	0	97.3	83.3	121	0			

Sample ID **0505104-01a msd** Batch ID: **R15402** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/16/2005 10:06:25 PM** Prep Date
Client ID: **CW 6 + 70** Run ID: **PIDFID_050516A** SeqNo: **362635**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.12	0.5	20	2.675	97.2	88.7	114	22.01	0.464	27	
Toluene	19.48	0.5	20	0.297	95.9	89.3	112	19.67	0.966	19	
Ethylbenzene	20.23	0.5	20	0.4584	98.8	88.6	113	20.06	0.802	10	
Xylenes, Total	57.92	0.5	60	1.266	94.4	89.4	112	58.06	0.242	13	
Surr: 4-Bromofluorobenzene	23.49	0	24	0	97.9	83.3	121	23.36	0.547	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: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **0505104-06C MS** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 2:55:37 PM** Prep Date **5/13/2005**
Client ID: **CW 16 + 60** Run ID: **ICP_050516B** SeqNo: **362856**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5693	0.02	0.5	0.02032	110	75	125	0			
Cadmium	0.5242	0.002	0.5	0	105	75	125	0			
Chromium	0.5004	0.006	0.5	0	100	75	125	0			
Lead	0.5047	0.005	0.5	0.01022	98.9	75	125	0			
Selenium	0.4651	0.05	0.5	0	93.0	75	125	0			
Silver	0.5375	0.005	0.5	0	107	75	125	0			

Sample ID **0505104-06C MSD** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 2:59:49 PM** Prep Date **5/13/2005**
Client ID: **CW 16 + 60** Run ID: **ICP_050516B** SeqNo: **362857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.567	0.02	0.5	0.02032	109	75	125	0.5693	0.415	20	
Cadmium	0.5172	0.002	0.5	0	103	75	125	0.5242	1.33	20	
Chromium	0.4934	0.006	0.5	0	98.7	75	125	0.5004	1.42	20	
Lead	0.4987	0.005	0.5	0.01022	97.7	75	125	0.5047	1.21	20	
Selenium	0.4678	0.05	0.5	0	93.6	75	125	0.4651	0.575	20	
Silver	0.528	0.005	0.5	0	106	75	125	0.5375	1.79	20	

13 / 18

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

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **361747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5047	0.1	0.5	0	101	90	110	0			
Chloride	4.755	0.1	5	0	95.1	90	110	0			
Phosphorus, Orthophosphate (As P)	4.836	0.5	5	0	96.7	90	110	0			
Sulfate	9.669	0.5	10	0	96.7	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.386	0.1	3.5	0	96.7	90	110	0			

Sample ID **LCS** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **361770**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5233	0.1	0.5	0	105	90	110	0			
Chloride	4.89	0.1	5	0	97.8	90	110	0			
Phosphorus, Orthophosphate (As P)	5.19	0.5	5	0	104	90	110	0			
Sulfate	9.994	0.5	10	0	99.9	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.485	0.1	3.5	0	99.6	90	110	0			

Sample ID **LCS** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/14/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **362064**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.516	0.1	0.5	0	103	90	110	0			
Chloride	4.744	0.1	5	0	94.9	90	110	0			
Phosphorus, Orthophosphate (As P)	4.845	0.5	5	0	96.9	90	110	0			
Sulfate	9.712	0.5	10	0.1124	96.0	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.383	0.1	3.5	0	96.7	90	110	0			

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

1

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS** Batch ID: **R15492** Test Code: **E300** Units: **mg/L** Analysis Date **5/24/2005** Prep Date
Client ID: Run ID: **LC_050524A** SeqNo: **365449**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5042	0.1	0.5	0	101	90	110	0			
Chloride	4.586	0.1	5	0	91.7	90	110	0			
Phosphorus, Orthophosphate (As P)	4.653	0.5	5	0	93.1	90	110	0			
Sulfate	9.322	0.5	10	0	93.2	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.255	0.1	3.5	0	93.0	90	110	0			

Sample ID **LCS** Batch ID: **R15502** Test Code: **E300** Units: **mg/L** Analysis Date **5/25/2005** Prep Date
Client ID: Run ID: **LC_050525A** SeqNo: **365705**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5249	0.1	0.5	0	105	90	110	0			
Chloride	4.589	0.1	5	0	91.8	90	110	0			
Phosphorus, Orthophosphate (As P)	4.656	0.5	5	0	93.1	90	110	0			
Sulfate	9.366	0.5	10	0	93.7	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.236	0.1	3.5	0	92.4	90	110	0			

Sample ID **LCS** Batch ID: **R15517** Test Code: **E300** Units: **mg/L** Analysis Date **5/26/2005** Prep Date
Client ID: Run ID: **LC_050526A** SeqNo: **366187**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4586	0.1	0.5	0	91.7	90	110	0			
Chloride	4.665	0.1	5	0	93.3	90	110	0			
Phosphorus, Orthophosphate (As P)	4.688	0.5	5	0	93.8	90	110	0			
Sulfate	9.338	0.5	10	0	93.4	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.306	0.1	3.5	0	94.5	90	110	0			

15/18

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: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **BTEX lcs 100ng** Batch ID: **R15402** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/17/2005 2:41:13 AM** Prep Date
Client ID: Run ID: **PIDFID_050516A** SeqNo: **362606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.62	0.5	20	0	98.1	88.7	114	0			
Toluene	19.42	0.5	20	0	97.1	89.3	112	0			
Ethylbenzene	19.56	0.5	20	0	97.8	88.6	113	0			
Xylenes, Total	58.39	0.5	60	0	97.3	89.4	112	0			

Sample ID **LCS-7989** Batch ID: **7989** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/17/2005** Prep Date **5/17/2005**
Client ID: Run ID: **MI-LA254_050517A** SeqNo: **362938**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004839	0.0002	0.005	0	96.8	75.2	134	0			

Sample ID **LCSD-7989** Batch ID: **7989** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/17/2005** Prep Date **5/17/2005**
Client ID: Run ID: **MI-LA254_050517A** SeqNo: **362962**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004773	0.0002	0.005	0	95.5	75.2	134	0.004839	1.35	0	

Sample ID **LCS-7969** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 1:09:21 PM** Prep Date **5/13/2005**
Client ID: Run ID: **ICP_050516B** SeqNo: **362841**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.526	0.02	0.5	0	105	80	120	0			
Barium	0.5109	0.02	0.5	0	102	80	120	0			
Cadmium	0.5159	0.002	0.5	0	103	80	120	0			
Chromium	0.5079	0.006	0.5	0	102	80	120	0			
Lead	0.5041	0.005	0.5	0	101	80	120	0			
Selenium	0.5057	0.05	0.5	0	101	80	120	0			
Silver	0.5122	0.005	0.5	0	102	80	120	0			

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

CLIENT: San Juan Refining
Work Order: 0505104
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID **LCSD-7969** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 1:12:23 PM** Prep Date **5/13/2005**
Client ID: Run ID: **ICP_050516B** SeqNo: **362842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5106	0.02	0.5	0	102	80	120	0.526	2.97	20	
Barium	0.4946	0.02	0.5	0	98.9	80	120	0.5109	3.23	20	
Cadmium	0.5016	0.002	0.5	0	100	80	120	0.5159	2.82	20	
Chromium	0.4943	0.006	0.5	0	98.9	80	120	0.5079	2.71	20	
Lead	0.4894	0.005	0.5	0	97.9	80	120	0.5041	2.95	20	
Selenium	0.4864	0.05	0.5	0	97.3	80	120	0.5057	3.89	20	
Silver	0.4958	0.005	0.5	0	99.2	80	120	0.5122	3.26	20	

17 / 18

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR — Date and Time Received: 5/12/2005

Work Order Number 0505104 — Received by AT

Checklist completed by _____ 5/12/05
Signature — Date

Matrix — Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐		
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐	
Custody seals intact on sample bottles?	Yes ☐	No ☑	N/A ☐		
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐		
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐		

Container/Temp Blank temperature? **21°** *4° C ± 2 Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Giant Refinery Ciniza
Address: #50, CR 4990
Bloomfield, NM 87413
Phone #: 505-632-4161
Fax #: 505-632-3911

Project Name: Phase II Monitoring
Project #:
Project Manager:
Sampler: Cindy Hurtado / Angela Folk
Sample Temperature: 1

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
5-11-05	915	H_2O	CW 6 + 70	2-VOA	X			0505104-1
				1-250ml			H_2SO_4	
				1-250ml				
				1-500ml		X		
5-11-05	1030	H_2O	CW 8 + 10	2 VOA	X			-2
				1-250ml			H_2SO_4	
				1-250ml				
				1-500ml		X		

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
X																
								X								
								X								
							X									
X																
							-	X								
							X									

Date: 5-11-05 Time: 3:40pm Relinquished By: (Signature) Cindy Hurtado
Received By: (Signature) 5/12/05 1415
Date: Time: Relinquished By: (Signature)
Received By: (Signature)

Remarks:

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☐ Level ☐
Other: _____

Client: San Juan Refining
Address: #50 CR 4990
Bloomfield, NM 87413
Phone #: 505-632-4161
Fax #: 505-632-3911

Project Name: Phase II - Monitoring
Project #:
Project Manager:
Sampler: Cindy Hurtado/Angela Folk
Sample Temperature: /

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative:	HEAL No.
5-11-05	1145am	H_2O	OW11 + 15	2-VOA	X			0505104-3
"	"	"	"	1-250ml			H_2SO_4	
"	"	"	"	1-250ml				
"	"	"	"	1-500ml		X		
5-11-05	145pm	H_2O	CW14 + 10	2-VOA	X			-4
"	"	"	"	1-250ml			H_2SO_4	
"	"	"	"	1-250ml				
"	"	"	"	1-500ml		X		

BTEX + ~~MTBE~~ + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
X																
								X								
								X								
							X									
X																
								X								
								X								
							X									

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
5-11-05	340pm	Cindy Hurtado	5/12/05 1415
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☐ Level 4 ☐
Other:

Client: SAN Juan Refining
Address: #50 Rd 4990
Bloomfield, NM
87413
Phone #: 505-632-4161
Fax #: 505-632-3911

Project Name: PHASE II Monitoring
Project #:
Project Manager:
Sampler: Cindy Hurtado/Angela Folk
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.	BTEX + ~~MTBE + TMB's (8021)~~	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
5-11-05	2:15pm	H_2O	OW14+10	2-VOA	X			0505104-5	X																
				1-250ml			H_2SO_4										X								
				1-250ml													X								
				1-500ml		X										X									
5-11-05	3pm	H_2O	CW16+60	2-VOA	X			-6	X																
				1-250ml			H_2SO_4										X								
				1-250ml													X								
				1-500ml		X										X									
			Trip Blank					-7																	

Date: 5-11-05 Time: 3:40pm Relinquished By: (Signature) Cindy Hurtado
Received By: (Signature)
Date: 5/12/05 Time: 1415

Date: Time: Relinquished By: (Signature)
Received By: (Signature)

Remarks:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

May 27, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: Phase II Monitoring

Order No.: 0505088

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 9 samples on 5/11/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 0+60
Lab Order: 0505088
Collection Date: 5/10/2005 8:30:00 AM
Project: Phase II Monitoring
Lab ID: 0505088-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.51	0.10		mg/L	1	5/11/2005
Chloride	39	0.50		mg/L	5	5/16/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	75	0.50		mg/L	1	5/11/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	200	10		µg/L	20	5/13/2005 7:01:46 PM
Toluene	32	10		µg/L	20	5/13/2005 7:01:46 PM
Ethylbenzene	180	10		µg/L	20	5/13/2005 7:01:46 PM
Xylenes, Total	1000	10		µg/L	20	5/13/2005 7:01:46 PM
Surr: 4-Bromofluorobenzene	108	83.3-121		%REC	20	5/13/2005 7:01:46 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:24:22 PM
Barium	0.33	0.020		mg/L	1	5/16/2005 1:24:22 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:24:22 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:24:22 PM
Lead	0.012	0.0050		mg/L	1	5/16/2005 1:24:22 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:24:22 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:24:22 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 1+50
Lab Order: 0505088
Collection Date: 5/10/2005 9:15:00 AM
Project: Phase II Monitoring
Lab ID: 0505088-02
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.59	0.10		mg/L	1	5/11/2005
Chloride	43	0.50		mg/L	5	5/16/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	5.8	0.50		mg/L	1	5/11/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1200	10		µg/L	20	5/13/2005 7:32:51 PM
Toluene	41	10		µg/L	20	5/13/2005 7:32:51 PM
Ethylbenzene	240	10		µg/L	20	5/13/2005 7:32:51 PM
Xylenes, Total	2300	10		µg/L	20	5/13/2005 7:32:51 PM
Surr: 4-Bromofluorobenzene	109	83.3-121		%REC	20	5/13/2005 7:32:51 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:28:17 PM
Barium	0.59	0.020		mg/L	1	5/16/2005 1:28:17 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:28:17 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:28:17 PM
Lead	0.0070	0.0050		mg/L	1	5/16/2005 1:28:17 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:28:17 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:28:17 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 19+50
Lab Order: 0505088
Collection Date: 5/10/2005 10:15:00 AM
Project: Phase II Monitoring
Lab ID: 0505088-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.35	0.10		mg/L	1	5/11/2005
Chloride	290	2.0		mg/L	20	5/16/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	290	10		mg/L	20	5/16/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1900	10		µg/L	20	5/13/2005 8:03:34 PM
Toluene	13	10		µg/L	20	5/13/2005 8:03:34 PM
Ethylbenzene	860	10		µg/L	20	5/13/2005 8:03:34 PM
Xylenes, Total	3200	10		µg/L	20	5/13/2005 8:03:34 PM
Surr: 4-Bromofluorobenzene	109	83.3-121		%REC	20	5/13/2005 8:03:34 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:32:07 PM
Barium	0.23	0.020		mg/L	1	5/16/2005 1:32:07 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:32:07 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:32:07 PM
Lead	0.024	0.0050		mg/L	1	5/16/2005 1:32:07 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:32:07 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:32:07 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 19+50
Lab Order: 0505088
Collection Date: 5/10/2005 10:45:00 AM
Project: Phase II Monitoring
Lab ID: 0505088-04
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.35	0.10		mg/L	1	5/11/2005
Chloride	230	2.0		mg/L	20	5/16/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	260	10		mg/L	20	5/16/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	4800	100		µg/L	200	5/16/2005 9:08:18 AM
Toluene	21	20		µg/L	40	5/13/2005 8:34:07 PM
Ethylbenzene	1700	100		µg/L	200	5/16/2005 9:08:18 AM
Xylenes, Total	5100	100		µg/L	200	5/16/2005 9:08:18 AM
Surr: 4-Bromofluorobenzene	103	83.3-121		%REC	200	5/16/2005 9:08:18 AM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:36:10 PM
Barium	0.20	0.020		mg/L	1	5/16/2005 1:36:10 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:36:10 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:36:10 PM
Lead	0.0061	0.0050		mg/L	1	5/16/2005 1:36:10 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:36:10 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:36:10 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 3+85
Lab Order: 0505088
Collection Date: 5/10/2005 1:30:00 PM
Project: Phase II Monitoring
Lab ID: 0505088-05
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.21	0.10		mg/L	1	5/11/2005
Chloride	270	2.0		mg/L	20	5/16/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	32	0.50		mg/L	1	5/11/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	35	10		µg/L	20	5/13/2005 9:04:37 PM
Toluene	22	10		µg/L	20	5/13/2005 9:04:37 PM
Ethylbenzene	20	10		µg/L	20	5/13/2005 9:04:37 PM
Xylenes, Total	250	10		µg/L	20	5/13/2005 9:04:37 PM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	20	5/13/2005 9:04:37 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:49:03 PM
Barium	0.68	0.020		mg/L	1	5/16/2005 1:49:03 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:49:03 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:49:03 PM
Lead	ND	0.0050		mg/L	1	5/16/2005 1:49:03 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:49:03 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:49:03 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 5+50
Lab Order: 0505088
Collection Date: 5/10/2005 2:15:00 PM
Project: Phase II Monitoring
Lab ID: 0505088-06
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.33	0.10		mg/L	1	5/11/2005
Chloride	2700	10		mg/L	100	5/17/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	75	50		mg/L	100	5/17/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/26/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	200	10		µg/L	20	5/13/2005 9:35:08 PM
Toluene	11	10		µg/L	20	5/13/2005 9:35:08 PM
Ethylbenzene	64	10		µg/L	20	5/13/2005 9:35:08 PM
Xylenes, Total	240	10		µg/L	20	5/13/2005 9:35:08 PM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	20	5/13/2005 9:35:08 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:53:08 PM
Barium	0.83	0.020		mg/L	1	5/16/2005 1:53:08 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:53:08 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:53:08 PM
Lead	ND	0.0050		mg/L	1	5/16/2005 1:53:08 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:53:08 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:53:08 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: Trip Blank
Lab Order: 0505088
Collection Date:
Project: Phase II Monitoring
Lab ID: 0505088-07
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		µg/L	1	5/13/2005 10:05:30 PM
Toluene	ND	0.50		µg/L	1	5/13/2005 10:05:30 PM
Ethylbenzene	ND	0.50		µg/L	1	5/13/2005 10:05:30 PM
Xylenes, Total	ND	0.50		µg/L	1	5/13/2005 10:05:30 PM
Surr: 4-Bromofluorobenzene	98.6	83.3-121		%REC	1	5/13/2005 10:05:30 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits.
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 22+00
Lab Order: 0505088
Collection Date: 5/10/2005 2:45:00 PM
Project: Phase II Monitoring
Lab ID: 0505088-08
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.74	0.10		mg/L	1	5/11/2005
Chloride	510	2.0		mg/L	20	5/17/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	38	0.50		mg/L	1	5/11/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/17/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	7000	100		µg/L	200	5/16/2005 9:38:58 AM
Toluene	90	10		µg/L	20	5/13/2005 10:35:52 PM
Ethylbenzene	95	10		µg/L	20	5/13/2005 10:35:52 PM
Xylenes, Total	200	10		µg/L	20	5/13/2005 10:35:52 PM
Surr: 4-Bromofluorobenzene	106	83.3-121		%REC	20	5/13/2005 10:35:52 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 1:57:15 PM
Barium	0.61	0.020		mg/L	1	5/16/2005 1:57:15 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 1:57:15 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 1:57:15 PM
Lead	ND	0.0050		mg/L	1	5/16/2005 1:57:15 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 1:57:15 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 1:57:15 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 22+00
Lab Order: 0505088
Collection Date: 5/10/2005 3:10:00 PM
Project: Phase II Monitoring
Lab ID: 0505088-09
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.78	0.10		mg/L	1	5/11/2005
Chloride	480	2.0		mg/L	20	5/17/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/11/2005
Sulfate	140	10		mg/L	20	5/17/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/17/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	3100	10		µg/L	20	5/13/2005 11:06:13 PM
Toluene	45	10		µg/L	20	5/13/2005 11:06:13 PM
Ethylbenzene	150	10		µg/L	20	5/13/2005 11:06:13 PM
Xylenes, Total	340	10		µg/L	20	5/13/2005 11:06:13 PM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	20	5/13/2005 11:06:13 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/17/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/16/2005 2:01:22 PM
Barium	0.16	0.020		mg/L	1	5/16/2005 2:01:22 PM
Cadmium	ND	0.0020		mg/L	1	5/16/2005 2:01:22 PM
Chromium	ND	0.0060		mg/L	1	5/16/2005 2:01:22 PM
Lead	0.012	0.0050		mg/L	1	5/16/2005 2:01:22 PM
Selenium	ND	0.050		mg/L	1	5/16/2005 2:01:22 PM
Silver	ND	0.0050		mg/L	1	5/16/2005 2:01:22 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Work Order: 0505088
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MBLK**	Batch ID: **R15366**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/11/2005**	Prep Date
Client ID:		Run ID: **LC_050511A**		SeqNo: **361369**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MBLK**	Batch ID: **R15404**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/16/2005**	Prep Date
Client ID:		Run ID: **LC_050516A**		SeqNo: **362672**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	0.05255	0.1									J
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MBLK**	Batch ID: **R15517**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/26/2005**	Prep Date
Client ID:		Run ID: **LC_050526A**		SeqNo: **366186**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

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: San Juan Refining
Work Order: 0505088
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R15378** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/13/2005 8:43:30 AM** Prep Date
Client ID: Run ID: **PIDFID_050513A** SeqNo: **361595**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.54	0	20	0	97.7	83.3	121	0			

Sample ID **Reagent Blank 5m** Batch ID: **R15402** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/16/2005 7:08:29 AM** Prep Date
Client ID: Run ID: **PIDFID_050516A** SeqNo: **362600**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.29	0	20	0	101	83.3	121	0			

Sample ID **MB-7989** Batch ID: **7989** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/17/2005** Prep Date **5/17/2005**
Client ID: Run ID: **MI-LA254_050517A** SeqNo: **362937**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

11/16

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: San Juan Refining
Work Order: 0505088
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MB-7969** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 1:06:22 PM** Prep Date **5/13/2005**
Client ID: Run ID: **ICP_050516B** SeqNo: **362840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	ND	0.005									

12/16

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

Hall Environmental Analysis Laboratory

Date: *27-May-05*

CLIENT: San Juan Refining
Work Order: 0505088
Project: Phase II Monitoring

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS**	Batch ID: **R15366**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/11/2005**	Prep Date
Client ID:		Run ID: **LC_050511A**		SeqNo: **361370**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5049	0.1	0.5	0	101	90	110	0			
Chloride	4.695	0.1	5	0	93.9	90	110	0			
Phosphorus, Orthophosphate (As P)	4.781	0.5	5	0	95.6	90	110	0			
Sulfate	9.703	0.5	10	0	97.0	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.329	0.1	3.5	0	95.1	90	110	0			

Sample ID **LCS**	Batch ID: **R15404**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/16/2005**	Prep Date
Client ID:		Run ID: **LC_050516A**		SeqNo: **362675**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5306	0.1	0.5	0	106	90	110	0			
Chloride	4.664	0.1	5	0.05255	92.2	90	110	0			
Phosphorus, Orthophosphate (As P)	4.747	0.5	5	0	94.9	90	110	0			
Sulfate	9.524	0.5	10	0	95.2	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.281	0.1	3.5	0	93.7	90	110	0			

Sample ID **LCS**	Batch ID: **R15517**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/26/2005**	Prep Date
Client ID:		Run ID: **LC_050526A**		SeqNo: **366187**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4586	0.1	0.5	0	91.7	90	110	0			
Chloride	4.665	0.1	5	0	93.3	90	110	0			
Phosphorus, Orthophosphate (As P)	4.688	0.5	5	0	93.8	90	110	0			
Sulfate	9.338	0.5	10	0	93.4	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.306	0.1	3.5	0	94.5	90	110	0			

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

1

13/16

CLIENT: San Juan Refining
Work Order: 0505088
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **BTEX lcs 100ng** Batch ID: **R15378** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/14/2005 2:37:48 AM** Prep Date
Client ID: Run ID: **PIDFID_050513A** SeqNo: **362246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.32	0.5	20	0	102	88.7	114	0			
Toluene	20.41	0.5	20	0	102	89.3	112	0			
Ethylbenzene	21.21	0.5	20	0	106	88.6	113	0			
Xylenes, Total	61.73	0.5	60	0	103	89.4	112	0			

Sample ID **BTEX lcs 100ng** Batch ID: **R15402** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/17/2005 2:41:13 AM** Prep Date
Client ID: Run ID: **PIDFID_050516A** SeqNo: **362606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.62	0.5	20	0	98.1	88.7	114	0			
Toluene	19.42	0.5	20	0	97.1	89.3	112	0			
Ethylbenzene	19.56	0.5	20	0	97.8	88.6	113	0			
Xylenes, Total	58.39	0.5	60	0	97.3	89.4	112	0			

Sample ID **LCS-7989** Batch ID: **7989** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/17/2005** Prep Date **5/17/2005**
Client ID: Run ID: **MI-LA254_050517A** SeqNo: **362938**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004839	0.0002	0.005	0	96.8	75.2	134	0			

Sample ID **LCSD-7989** Batch ID: **7989** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/17/2005** Prep Date **5/17/2005**
Client ID: Run ID: **MI-LA254_050517A** SeqNo: **362962**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004773	0.0002	0.005	0	95.5	75.2	134	0.004839	1.35	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: San Juan Refining
Work Order: 0505088
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-7969** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 1:09:21 PM** Prep Date **5/13/2005**
Client ID: Run ID: **ICP_050516B** SeqNo: **362841**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.526	0.02	0.5	0	105	80	120	0			
Barium	0.5109	0.02	0.5	0	102	80	120	0			
Cadmium	0.5159	0.002	0.5	0	103	80	120	0			
Chromium	0.5079	0.006	0.5	0	102	80	120	0			
Lead	0.5041	0.005	0.5	0	101	80	120	0			
Selenium	0.5057	0.05	0.5	0	101	80	120	0			
Silver	0.5122	0.005	0.5	0	102	80	120	0			

Sample ID **LCSD-7969** Batch ID: **7969** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/16/2005 1:12:23 PM** Prep Date **5/13/2005**
Client ID: Run ID: **ICP_050516B** SeqNo: **362842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5106	0.02	0.5	0	102	80	120	0.526	2.97	20	
Barium	0.4946	0.02	0.5	0	98.9	80	120	0.5109	3.23	20	
Cadmium	0.5016	0.002	0.5	0	100	80	120	0.5159	2.82	20	
Chromium	0.4943	0.006	0.5	0	98.9	80	120	0.5079	2.71	20	
Lead	0.4894	0.005	0.5	0	97.9	80	120	0.5041	2.95	20	
Selenium	0.4864	0.05	0.5	0	97.3	80	120	0.5057	3.89	20	
Silver	0.4958	0.005	0.5	0	99.2	80	120	0.5122	3.26	20	

15 / 16

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR — Date and Time Received: 5/11/2005

Work Order Number 0505088 — Received by GLS

Checklist completed by G Schlappe 5-11-05
Signature — Date

Matrix — Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Container/Temp Blank temperature? 1° *4° C ± 2 Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☐ Level ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: San Juan Refinery
Address: #50 Rd 4990 Bloomfield, NM 87413
Phone #: 505-632-4161
Fax #: 505-632-3911

Project Name: Phase II Monitoring
Project #:
Project Manager:
Sampler: Cindy Hurtado/Angela Folk
Sample Temperature: n/a

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
								0505088
5-10-05	830A	H_2O	CW0+60	2-40A	X			-1
				1-250ml			H_2SO_4	-1
				1-250ml				-1
				1-500ml		X		-1
5-10-05	915A	H_2O	CW1+50	2-VOA	X			-2
				1-250ml			H_2SO_4	-2
				1-250ml				-2
				1-500ml		X		-2

ANALYSIS REQUEST

BTEX + ~~MTBE~~ + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
X																
								X								
								X								
							X									
X								-								
								X								
								X								
							X									

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
5-10-05	330pm	Cindy Hurtado	5-11-05 @ 14:00
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☐ Level ☐ Other:

Client: San Juan Refining

Address: 50 Rd 4990 Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Project Name: Phase II Monitoring

Project #:

Project Manager:

Sampler: Cindy Hurtado / Angela Folk

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No. 0505088	BTEX + ~~MTBE + TMB's (8021)~~	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
5-10-05	1015A	H_2O	OW19+50	2-VOA	X			-3	X																
				1-250mL			H_2SO_4	-3									X								
				1-250mL				-3									X								
				1-500mL		X		-3								X									
5-10-05	1045A	H_2O	CW19+50	2-VOA	X			-4	X																
				1-250mL			H_2SO_4	-4									X								
				1-250mL				-4									X								
				1-500mL	X			-4								X									

Date: 5-10-05 Time: 3:30pm Relinquished By: (Signature) Cindy Hurtado

Received By: (Signature) [signature] 5-11-05 @ 14:00

Date: Time: Relinquished By: (Signature)

Received By: (Signature)

Remarks:

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level ☐
Other:

Client: San Juan Refining
Address: #50 Rd 4990
Bloomfield, NM
87413
Phone #: 505-632-4161
Fax #: 505-632-3911

Project Name: Phase II Monitoring
Project #:
Project Manager:
Sampler: Cindy Hurtado/Angela Folk
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No. 0505088	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
5-10-05	1300	H_2O	CW3+85	2-VOA	X			-5	X																
"	"	"	"	1-250mL			H_2SO_4	-5									X								
"	"	"	"	1-250mL				-5									X								
"	"	"	"	1-500mL		X		-5								X									
5-10-05	2150	H_2O	CW5+50	2-VOA	X			-6	X																
"	"	"	"	1-250mL			H_2SO_4	-6									X								
"	"	"	"	1-250mL				-6									X								
"	"	"	"	1-500mL		X		-6								X									
			Trip Blank					-7																	

Date: 5-10-05 Time: 1330 Relinquished By: (Signature) Cindy Hurtado
Received By: (Signature) [signature] 5-11-05 @ 1400
Date: Time: Relinquished By: (Signature)
Received By: (Signature)

Remarks:

CHAIN-OF-CUSTODY RECORD

Std ☐ Level 4 ☐

Other:

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: San Juan Refining

Project Name: PHASE II Monitoring

Address: #50 Rd 4990 Bloomfield, NM 87413

Project #:

Project Manager:

Phone #: 505-632-4161

Fax #: 505-632-3911

Sampler: Cindy Hurtado/Angela Folk

Sample Temperature: 6°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No. 0505088	BTEX + ~~MTBE + TMB's (8021)~~	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
5-10-05	245pm	H2O	CW22+00	2-VOA	X			-8	X																
				1-250mL		#	H_2SO_4	-8									X								
				1-250mL				-8									X								
				1-500mL		X		-8								X									
5-10-05	310pm	H2O	OW22+00	2-VOA	X			-9	X																
				1-250mL			H_2SO_4	-9									X								
				1-250mL				-9									X								
				1-500mL		X		-9								X									

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	Remarks:
5-10-05	330pm	Cindy Hurtado		
			5-11-05 @1400	
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

May 31, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: Phase II Monitoring

Order No.: 0505119

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 7 samples on 5/13/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 23+10
Lab Order: 0505119
Collection Date: 5/12/2005 8:30:00 AM
Project: Phase II Monitoring
Lab ID: 0505119-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.59	0.10		mg/L	1	5/14/2005
Chloride	450	2.0		mg/L	20	5/25/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/14/2005
Sulfate	9.7	0.50		mg/L	1	5/14/2005
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	5/25/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	6300	50		µg/L	100	5/17/2005 10:12:56 AM
Toluene	76	10		µg/L	20	5/16/2005 10:37:05 PM
Ethylbenzene	190	10		µg/L	20	5/16/2005 10:37:05 PM
Xylenes, Total	350	10		µg/L	20	5/16/2005 10:37:05 PM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	20	5/16/2005 10:37:05 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	0.00038	0.00020		mg/L	1	5/26/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/18/2005 1:15:23 PM
Barium	0.73	0.020		mg/L	1	5/18/2005 1:15:23 PM
Cadmium	ND	0.0020		mg/L	1	5/18/2005 1:15:23 PM
Chromium	ND	0.0060		mg/L	1	5/18/2005 1:15:23 PM
Lead	ND	0.0050		mg/L	1	5/18/2005 1:15:23 PM
Selenium	ND	0.050		mg/L	1	5/18/2005 1:15:23 PM
Silver	ND	0.0050		mg/L	1	5/18/2005 1:15:23 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 23+90
Lab Order: 0505119
Collection Date: 5/12/2005 9:20:00 AM
Project: Phase II Monitoring
Lab ID: 0505119-02
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.39	0.10		mg/L	1	5/14/2005
Chloride	350	2.0		mg/L	20	5/25/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	5/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	5/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/14/2005
Sulfate	4.9	0.50		mg/L	1	5/14/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	3400	10		µg/L	20	5/16/2005 11:07:51 PM
Toluene	35	10		µg/L	20	5/16/2005 11:07:51 PM
Ethylbenzene	170	10		µg/L	20	5/16/2005 11:07:51 PM
Xylenes, Total	400	10		µg/L	20	5/16/2005 11:07:51 PM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	20	5/16/2005 11:07:51 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/26/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/18/2005 1:19:31 PM
Barium	0.40	0.020		mg/L	1	5/18/2005 1:19:31 PM
Cadmium	ND	0.0020		mg/L	1	5/18/2005 1:19:31 PM
Chromium	ND	0.0060		mg/L	1	5/18/2005 1:19:31 PM
Lead	ND	0.0050		mg/L	1	5/18/2005 1:19:31 PM
Selenium	ND	0.050		mg/L	1	5/18/2005 1:19:31 PM
Silver	ND	0.0050		mg/L	1	5/18/2005 1:19:31 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: CW 25+95
Lab Order: 0505119
Collection Date: 5/12/2005 10:10:00 AM
Project: Phase II Monitoring
Lab ID: 0505119-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.43	0.10		mg/L	1	5/14/2005
Chloride	85	1.0		mg/L	10	5/25/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	5/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	5/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/14/2005
Sulfate	270	5.0		mg/L	10	5/25/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1.0	0.50		µg/L	1	5/16/2005 11:38:28 PM
Toluene	ND	0.50		µg/L	1	5/16/2005 11:38:28 PM
Ethylbenzene	ND	0.50		µg/L	1	5/16/2005 11:38:28 PM
Xylenes, Total	ND	0.50		µg/L	1	5/16/2005 11:38:28 PM
Surr: 4-Bromofluorobenzene	100	83.3-121		%REC	1	5/16/2005 11:38:28 PM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/26/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/18/2005 1:23:39 PM
Barium	0.085	0.020		mg/L	1	5/18/2005 1:23:39 PM
Cadmium	ND	0.0020		mg/L	1	5/18/2005 1:23:39 PM
Chromium	ND	0.0060		mg/L	1	5/18/2005 1:23:39 PM
Lead	ND	0.0050		mg/L	1	5/18/2005 1:23:39 PM
Selenium	ND	0.050		mg/L	1	5/18/2005 1:23:39 PM
Silver	ND	0.0050		mg/L	1	5/18/2005 1:23:39 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 25+70
Lab Order: 0505119
Collection Date: 5/12/2005 10:20:00 AM
Project: Phase II Monitoring
Lab ID: 0505119-04
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.53	0.10		mg/L	1	5/14/2005
Chloride	50	1.0		mg/L	10	5/25/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	5/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	5/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/14/2005
Sulfate	350	5.0		mg/L	10	5/25/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	0.79	0.50		µg/L	1	5/17/2005 12:09:01 AM
Toluene	ND	0.50		µg/L	1	5/17/2005 12:09:01 AM
Ethylbenzene	ND	0.50		µg/L	1	5/17/2005 12:09:01 AM
Xylenes, Total	ND	0.50		µg/L	1	5/17/2005 12:09:01 AM
Surr: 4-Bromofluorobenzene	101	83.3-121		%REC	1	5/17/2005 12:09:01 AM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	ND	0.00020		mg/L	1	5/26/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	0.14	0.10		mg/L	5	5/18/2005 2:48:09 PM
Barium	25	2.0		mg/L	100	5/18/2005 3:22:11 PM
Cadmium	ND	0.010		mg/L	5	5/18/2005 2:48:09 PM
Chromium	0.44	0.030		mg/L	5	5/18/2005 2:48:09 PM
Lead	0.13	0.025		mg/L	5	5/18/2005 2:48:09 PM
Selenium	ND	0.25		mg/L	5	5/18/2005 2:48:09 PM
Silver	ND	0.025		mg/L	5	5/18/2005 2:48:09 PM

Qualifiers:

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B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 23+90
Lab Order: 0505119
Collection Date: 5/12/2005 12:30:00 PM
Project: Phase II Monitoring
Lab ID: 0505119-05
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.72	0.10		mg/L	1	5/14/2005
Chloride	320	2.0		mg/L	20	5/25/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	5/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	5/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/14/2005
Sulfate	77	0.50		mg/L	1	5/14/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	980	10		µg/L	20	5/17/2005 12:39:31 AM
Toluene	16	10		µg/L	20	5/17/2005 12:39:31 AM
Ethylbenzene	31	10		µg/L	20	5/17/2005 12:39:31 AM
Xylenes, Total	130	10		µg/L	20	5/17/2005 12:39:31 AM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	20	5/17/2005 12:39:31 AM

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: OW 23+10
Lab Order: 0505119
Collection Date: 5/12/2005 1:00:00 PM
Project: Phase II Monitoring
Lab ID: 0505119-06
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.47	0.10		mg/L	1	5/14/2005
Chloride	270	2.0		mg/L	20	5/25/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	5/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	5/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/14/2005
Sulfate	360	10		mg/L	20	5/25/2005
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	340	5.0		µg/L	10	5/17/2005 10:43:37 AM
Toluene	9.2	5.0		µg/L	10	5/17/2005 10:43:37 AM
Ethylbenzene	11	5.0		µg/L	10	5/17/2005 10:43:37 AM
Xylenes, Total	80	5.0		µg/L	10	5/17/2005 10:43:37 AM
Surr: 4-Bromofluorobenzene	105	83.3-121		%REC	10	5/17/2005 10:43:37 AM
EPA METHOD 7470: MERCURY						Analyst: **CMC**
Mercury	0.00096	0.00020		mg/L	1	5/26/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **CMC**
Arsenic	ND	0.020		mg/L	1	5/18/2005 1:34:49 PM
Barium	0.75	0.020		mg/L	1	5/18/2005 1:34:49 PM
Cadmium	ND	0.0020		mg/L	1	5/18/2005 1:34:49 PM
Chromium	0.020	0.0060		mg/L	1	5/18/2005 1:34:49 PM
Lead	0.0091	0.0050		mg/L	1	5/18/2005 1:34:49 PM
Selenium	ND	0.050		mg/L	1	5/18/2005 1:34:49 PM
Silver	ND	0.0050		mg/L	1	5/18/2005 1:34:49 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Client Sample ID: Trip Blank
Lab Order: 0505119
Collection Date:
Project: Phase II Monitoring
Lab ID: 0505119-07
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		µg/L	1	5/17/2005 2:10:51 AM
Toluene	ND	0.50		µg/L	1	5/17/2005 2:10:51 AM
Ethylbenzene	ND	0.50		µg/L	1	5/17/2005 2:10:51 AM
Xylenes, Total	ND	0.50		µg/L	1	5/17/2005 2:10:51 AM
Surr: 4-Bromofluorobenzene	97.4	83.3-121		%REC	1	5/17/2005 2:10:51 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MBLK** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **361746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID **MB** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **361769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

8 / 16

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

1

CLIENT: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MB** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/14/2005** Prep Date
Client ID: Run ID: **LC_050512A** SeqNo: **362063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1	0	0	0	0	0	0			
Chloride	ND	0.1	0	0	0	0	0	0			
Nitrogen, Nitrite (As N)	ND	0.1	0	0	0	0	0	0			
Nitrogen, Nitrate (As N)	ND	0.1	0	0	0	0	0	0			
Phosphorus, Orthophosphate (As P)	ND	0.5	0	0	0	0	0	0			
Sulfate	0.1124	0.5	0	0	0	0	0	0			J
Nitrate (As N)+Nitrite (As N)	ND	0.1	0	0	0	0	0	0			

Sample ID **MBLK** Batch ID: **R15502** Test Code: **E300** Units: **mg/L** Analysis Date **5/25/2005** Prep Date
Client ID: Run ID: **LC_050525A** SeqNo: **365704**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

9 / 16

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: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: ***R15402*** Test Code: ***SW8021*** Units: ***µg/L*** Analysis Date ***5/16/2005 7:08:29 AM*** Prep Date
Client ID: Run ID: **PIDFID_050516A** SeqNo: **362600**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.29	0	20	0	101	83.3	121	0			

Sample ID **Reagent Blank 5m** Batch ID: **R15413** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/17/2005 8:39:57 AM** Prep Date
Client ID: Run ID: **PIDFID_050517A** SeqNo: **362968**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.76	0	20	0	98.8	83.3	121	0			

Sample ID **MB-8047** Batch ID: **8047** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/26/2005** Prep Date **5/26/2005**
Client ID: Run ID: **MI-LA254_050526A** SeqNo: **366067**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

10/16

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: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID **MB-7986** Batch ID: **7986** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/18/2005 1:00:33 PM** Prep Date **5/17/2005**
Client ID: Run ID: **ICP_050518A** SeqNo: **363313**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	ND	0.005									

11/16

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

Hall Environmental Analysis Laboratory

Date: *31-May-05*

CLIENT: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date

Client ID: Run ID: **LC_050512A** SeqNo: **361747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5047	0.1	0.5	0	101	90	110	0			
Chloride	4.755	0.1	5	0	95.1	90	110	0			
Nitrogen, Nitrite (As N)	0.9372	0.1	1	0	93.7	90	110	0			
Nitrogen, Nitrate (As N)	2.449	0.1	2.5	0	98.0	90	110	0			
Phosphorus, Orthophosphate (As P)	4.836	0.5	5	0	96.7	90	110	0			
Sulfate	9.669	0.5	10	0	96.7	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.386	0.1	3.5	0	96.7	90	110	0			

Sample ID **LCS** Batch ID: **R15380** Test Code: **E300** Units: **mg/L** Analysis Date **5/12/2005** Prep Date

Client ID: Run ID: **LC_050512A** SeqNo: **361770**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5233	0.1	0.5	0	105	90	110	0			
Chloride	4.89	0.1	5	0	97.8	90	110	0			
Nitrogen, Nitrite (As N)	0.978	0.1	1	0	97.8	90	110	0			
Nitrogen, Nitrate (As N)	2.507	0.1	2.5	0	100	90	110	0			
Phosphorus, Orthophosphate (As P)	5.19	0.5	5	0	104	90	110	0			
Sulfate	9.994	0.5	10	0	99.9	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.485	0.1	3.5	0	99.6	90	110	0			

12/16

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

1

CLIENT: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS**	Batch ID: **R15380**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/14/2005**	Prep Date
Client ID:		Run ID: **LC_050512A**		SeqNo: **362064**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.516	0.1	0.5	0	103	90	110	0			
Chloride	4.744	0.1	5	0	94.9	90	110	0			
Nitrogen, Nitrite (As N)	0.9562	0.1	1	0	95.6	90	110	0			
Nitrogen, Nitrate (As N)	2.427	0.1	2.5	0	97.1	90	110	0			
Phosphorus, Orthophosphate (As P)	4.845	0.5	5	0	96.9	90	110	0			
Sulfate	9.712	0.5	10	0.1124	96.0	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.383	0.1	3.5	0	96.7	90	110	0			

Sample ID **LCS**	Batch ID: **R15502**	Test Code: **E300**	Units: **mg/L**	Analysis Date **5/25/2005**	Prep Date
Client ID:		Run ID: **LC_050525A**		SeqNo: **365705**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5249	0.1	0.5	0	105	90	110	0			
Chloride	4.589	0.1	5	0	91.8	90	110	0			
Nitrogen, Nitrite (As N)	0.9075	0.1	1	0	90.8	90	110	0			
Nitrogen, Nitrate (As N)	2.328	0.1	2.5	0	93.1	90	110	0			
Phosphorus, Orthophosphate (As P)	4.656	0.5	5	0	93.1	90	110	0			
Sulfate	9.366	0.5	10	0	93.7	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.236	0.1	3.5	0	92.4	90	110	0			

Sample ID **BTEX lcs 100ng**	Batch ID: **R15402**	Test Code: **SW8021**	Units: **µg/L**	Analysis Date **5/17/2005 2:41:13 AM**	Prep Date
Client ID:		Run ID: **PIDFID_050516A**		SeqNo: **362606**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.62	0.5	20	0	98.1	88.7	114	0			
Toluene	19.42	0.5	20	0	97.1	89.3	112	0			
Ethylbenzene	19.56	0.5	20	0	97.8	88.6	113	0			
Xylenes, Total	58.39	0.5	60	0	97.3	89.4	112	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: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **BTEX lcs 100ng** Batch ID: **R15413** Test Code: **SW8021** Units: **µg/L** Analysis Date **5/17/2005 10:39:14 PM** Prep Date
Client ID: Run ID: **PIDFID_050517A** SeqNo: **363019**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.19	0.5	20	0	95.9	88.7	114	0			
Toluene	19.54	0.5	20	0	97.7	89.3	112	0			
Ethylbenzene	19.59	0.5	20	0	97.9	88.6	113	0			
Xylenes, Total	59.19	0.5	60	0	98.7	89.4	112	0			

Sample ID **LCS-8047** Batch ID: **8047** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/26/2005** Prep Date **5/26/2005**
Client ID: Run ID: **MI-LA254_050526A** SeqNo: **366068**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004958	0.0002	0.005	0	99.2	75.2	134	0			

Sample ID **LCSD-8047** Batch ID: **8047** Test Code: **SW7470** Units: **mg/L** Analysis Date **5/26/2005** Prep Date **5/26/2005**
Client ID: Run ID: **MI-LA254_050526A** SeqNo: **366084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005284	0.0002	0.005	0	106	75.2	134	0.004958	6.36	0	

Sample ID **LCS-7986** Batch ID: **7986** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/18/2005 1:03:29 PM** Prep Date **5/17/2005**
Client ID: Run ID: **ICP_050518A** SeqNo: **363314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.528	0.02	0.5	0	106	80	120	0			
Barium	0.5084	0.02	0.5	0	102	80	120	0			
Cadmium	0.5097	0.002	0.5	0	102	80	120	0			
Chromium	0.5011	0.006	0.5	0	100	80	120	0			
Lead	0.4976	0.005	0.5	0	99.5	80	120	0			
Selenium	0.4864	0.05	0.5	0	97.3	80	120	0			
Silver	0.5102	0.005	0.5	0	102	80	120	0			

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

CLIENT: San Juan Refining
Work Order: 0505119
Project: Phase II Monitoring

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-7986** Batch ID: **7986** Test Code: **SW6010A** Units: **mg/L** Analysis Date **5/18/2005 1:06:28 PM** Prep Date **5/17/2005**

Client ID: Run ID: **ICP_050518A** SeqNo: **363315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5204	0.02	0.5	0	104	80	120	0.528	1.44	20	
Barium	0.5108	0.02	0.5	0	102	80	120	0.5084	0.483	20	
Cadmium	0.5099	0.002	0.5	0	102	80	120	0.5097	0.0392	20	
Chromium	0.5056	0.006	0.5	0	101	80	120	0.5011	0.894	20	
Lead	0.4979	0.005	0.5	0	99.6	80	120	0.4976	0.0656	20	
Selenium	0.4785	0.05	0.5	0	95.7	80	120	0.4864	1.65	20	
Silver	0.5105	0.005	0.5	0	102	80	120	0.5102	0.0645	20	

15/16

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR | Date and Time Received: 5/13/2005

Work Order Number 0505119 | Received by GLS

Checklist completed by [signature] Signature | 5-13-05 Date

Matrix | Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Container/Temp Blank temperature? **1°** *4° C ± 2 Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☐ Level 4 ☐

Other: _____

Client: SAN Juan Refining

Project Name: Phase II Monitoring

Address: #50 CR4990 Bloomfield, NM 87413

Project #:

Project Manager:

Phone #: 505-632-4161

Sampler: Cindy Hurtado / Angela Folk

Fax #: 505-632-3911

Sample Temperature: 1°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative:	HEAL No. 0505119	BTEX + ~~MTBE + TMB's (8021)~~	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
5-12-05	830am	H_2O	CW23+10	2-VOA	X			-1	X																
				1-250ml			H_2SO_4	-1									X								
				1-250ml				-1									X								
				1-500ml		X		-1								X									
5-12-05	920am	H_2O	CW23+90	2-VOA	X			-2	X																
				1-250ml			H_2SO_4	-2									X								
				1-250ml				-2									X								
				1-500ml		X		-2								X									

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	Date	Time
5-12-05	330pm	Cindy Hurtado	D. Schleppe	5-13-05	12:40
		Relinquished By: (Signature)	Received By: (Signature)		

Remarks:

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☐ Level 4 ☐

Other: _____

Client: San Juan Refining

Project Name: Phase II Monitoring

Address: #50 Rd 4990 Bloomfield, NM 87413

Project #:

Project Manager:

Phone #: 505-632-4161

Fax #: 505-632-3911

Sampler: Cindy Hurtado / Angela Folk

Sample Temperature:

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No. 0505119
5-12-05	1010 Hr	H_2O	CW25+95	2-VOA	X			-3
				1-250ml			H_2SO_4	-3
				1-250ml				-3
				1-500ml		X		-3
5-12-05	1020 Hr	H_2O	OW25+70	2-VOA	X			-4
				1-250ml			H_2SO_4	-4
				1-250ml				-4
				1-500ml		X		-4

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
X																
								X								
								X								
							X									
X																
								X								
								X								
							X									

ANALYSIS REQUEST

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	
5-12-05	330pm	Cindy Hurtado	[signature]	5-13-05 @ 7:10
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD

Accreditation Applied: NELAC ☐ USACE ☐ Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
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Client: San Juan Refining

Project Name: Phase II Monitoring

Address: #50 Rd 4990 Bloomfield, NM 87413

Project #:

Project Manager:

Phone #: 505-632-4161

Sampler: Cindy Hurtado / Angela Folk

Fax #: 505-632-3911

Sample Temperature:

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
5-12-05	1230pm	H_2O	OW23+90	2-VOA	Y			0505119 -5
"	"	"	"	1-250mL			H_2SO_4	-5
"	"	"	"	1-250mL				-5
5-12-05	1pm	H_2O	OW23+10	2-VOA	X			-6
"	"	"	"	1-250mL			H_2SO_4	-6
"	"	"	"	1-250mL				-6
"	"	"	"	1-500mL		X		-6
"	"	"	trip blank	1-40mL	X			-7

ANALYSIS REQUEST

BTEX + ~~MTBE~~ + ~~TMB's~~ (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
X																
								X								
								X								
							X									
X																
								X								
								X								
							X									
X																

Date: 5-12-05 Time: 3330pm Relinquished By: (Signature) Cindy Hurtado

Received By: (Signature) 5-13-05 @ 1240

Date: Time: Relinquished By: (Signature)

Received By: (Signature)

Remarks: Limited amount of sample - wells kept drying up - Do what you can