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www.secor.com
3017 Kilgore Road, Suite 100
Rancho Cordova, CA 95670
916-861-0400 TEL
916-861-0430 FAX

July 26, 2005

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Reports ☒

Mr. Bill Janes
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, Alaska

RE: **Annual Groundwater Monitoring Report 2005**
Former Delta Western/Chevron Bulk Terminal 8-2307
9203 Cessna Drive
Juneau, Alaska
SECOR Project No.: 77CH.82307.02.0670

Dear Mr. Janes:

SECOR International Incorporated (SECOR), on behalf of Chevron Environmental Management Company (CEMC), is providing this report to summarize the annual groundwater monitoring event for 2005 at the above referenced site.

COMPLETED ACTIVITIES – Annual Event 2005

- Conducted annual groundwater monitoring and sampling;
- Prepare and submit annual groundwater monitoring report; and
- Destroyed monitoring wells MW-1, MW-2, MW-3, and submitted summary report.

PLANNED ACTIVITIES

- Evaluate alternatives for reducing the residual diesel range hydrocarbons (DRO) levels in MW-4; and
- Conduct the annual groundwater monitoring and sampling event for 2006.

DISCUSSION

On May 27, 2005, SECOR conducted groundwater monitoring and sampling for the annual 2005 event for the above referenced site (Figure 1). One well MW-4 was monitored and sampled during this event. Field and laboratory procedures are presented in Attachment 1. Field data sheets are presented in Attachment 2.

Groundwater samples collected from MW-4 were analyzed for gasoline range hydrocarbons (GRO), DRO, benzene, toluene, ethylbenzene, and total xylenes (BTEX). DRO and GRO were detected at concentrations of 24,000 micrograms per liter (µg/l) and 510 µg/l, respectively. Ethylbenzene and total xylenes were detected at concentrations of 37 µg/l and 40 µg/l, respectively. Toluene was not detected above method detection limits. Groundwater analytical results are summarized in Table 1, and presented in Figure 3. Laboratory analytical reports and chain-of–custody documentation are presented as Attachment 3.

Per email correspondence between the Alaska Department of Environmental Conservation (ADEC) and CEMC, on March 1, 2004, annual monitoring and sampling of the site will be terminated until "such time that additional active work is conducted at the facility." Alternatives for reducing the residual DRO levels in the perched zone monitored by well MW-4 below ADEC clean-up standards

are currently being evaluated. Once an appropriate alternative has been selected, a work plan will be submitted for the chosen alternative.

Should you have any questions or concerns regarding these activities, please feel free to contact David Weigner at (916) 861-0400 extension 277 or Stacie Hartung-Frerichs with CEMC at (925) 842-9655.

Sincerely,
SECOR International Incorporated

Bryan Rorie
Staff Scientist

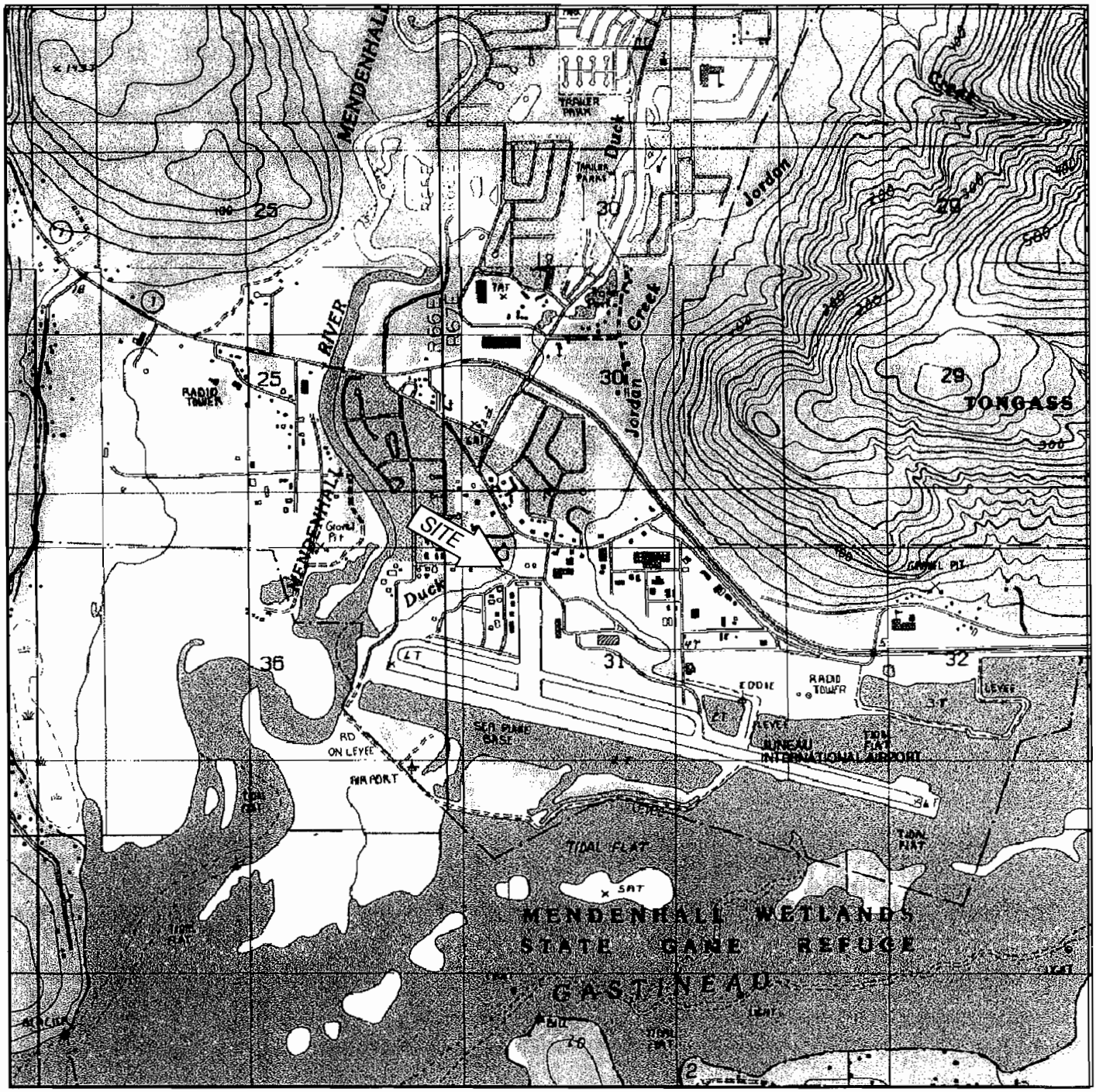
David Weigner
Project Manager

Enclosures:

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Chemical Concentrations Map, May 27, 2005
Table 1	Groundwater Elevation and Analytical Data
Attachment 1	Field and Laboratory Procedures
Attachment 2	Field Data Sheets
Attachment 3	Laboratory Analytical Reports and Chain-of-Custody Documentation

cc: Stacie Hartung-Frerichs, CEMC, San Ramon, CA
Rorie Watt, City and Burrough of Juneau, Juneau, AK
Richard Rountree, Aero Services, Inc., Juneau, AK
James Soriano, Delta Western, Seattle, WA
Brian Olsen, Delta Western, Juneau, AK
Allan Hesse, Juneau International Airport, Juneau, AK
Trena Hallback, Delta Western, Anchorage, AK

FIGURES



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SCALE (MILES)

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, JUNEAU, ALASKA

SECOR
3017 KILGORE ROAD, SUITE 100
RANCHO CORDOVA, CALIFORNIA
PHONE: (916) 861-0400/861-0430 (FAX)

FOR:
FORMER DELTA WESTERN/
CHEVRON BULK TERMINAL NO. 8-2307
9203
CESSNA DRIVE
JUNEAU, ALASKA

SITE LOCATION MAP

FIGURE: **1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
77CH.82307.02	MDR	JSA	JSA	6/14/05

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TABLES

Table 1
Groundwater Elevation and Analytical Data

Former Delta Western/Chevron Bulk Terminal 8-2307
9203 Cessna Drive
Juneau, Alaska

Well Number	Date Sampled	Time Sampled	Well Elevation (feet,TOC)	Depth to Water (feet)	Groundwater Elevation (feet)	SPH Thickness (feet)	GRO (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	DRO (µg/l)	RRO (µg/l)	VOCs (µg/l)
MW-1	06/06/00	1350	25.19	8.55	16.64	0.00	<50.0	<0.500	<0.500	<0.500	<1.00	269	<750	ND
	12/09/00	1735		7.72	17.47	0.00	<50.0	0.225	0.820	<0.500	<1.00	201	<750	--
	03/24/01	0940		8.48	16.71	0.00	<50.0	0.214	<0.500	<0.500	<1.00	298	--	--
	06/19/01	0850		8.93	16.26	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	121	--	--
	06/17/02	1410		8.60	16.59	0.00	<50.0	1.15	<0.500	<0.500	<1.00	181	--	--
	12/11/02	1021		7.53	17.66	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	<100	--	--
	06/25/03	1316		4.72	20.47	0.00	<50.0	4.57	<0.500	<0.500	<1.00	<100	--	--
	12/09/03	1520		8.43	16.76	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	139	--	--
	05/18/04	1227		9.38	15.81	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	<391	--	--
	05/27/05								Well Destroyed					
MW-2	06/06/00	1240	28.73	13.20	15.53	0.00	<50.0	<0.500	<0.500	<0.500	<1.00	220	<750	ND
	12/09/00	1540		12.12	16.61	0.00	<50.0	0.395	0.951	<0.500	<1.00	220	<750	--
Dup	12/09/00	1540	--	--	--	--	<50.0	0.353	1.01	<0.500	1.00	201	<750	--
	03/24/01	1110		13.28	15.45	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	176	--	--
	06/19/01	1025		13.72	15.01	0.00	57.5	0.213	<0.500	<0.500	1.11	274	--	--
	06/17/02	1450		13.13	15.60	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	393	--	--
	12/11/02	0818		9.00	19.73	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	159	--	--
	06/25/03	1320		14.34	14.39	0.00	80.2	<0.200	<0.500	<0.500	<1.00	209	--	--
	12/09/03	1550		13.15	15.58	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	132	--	--
	05/18/04	1130		9.4	19.33	0.00	<50.0	<0.200	0.620	<0.500	1.01	<391	--	--
	05/27/05								Well Destroyed					
MW-3	06/06/00	1500	28.21	12.09	16.12	0.00	<50.0	<0.500	<0.500	<0.500	<1.00	144	<750	ND
	12/10/00	0910		11.29	16.92	0.00	<50.0	0.223	<0.500	<0.500	<1.00	439	<750	--
	03/24/01	1035		12.11	16.10	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	188	--	--
Dup	03/24/01	1035	--	--	--	--	<50.0	<0.200	<0.500	<0.500	<1.00	148	--	--
	06/19/01	0925		12.53	15.68	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	163	--	--
Dup	06/19/01	1200	--	--	--	--	<50.0	<0.200	<0.500	<0.500	<1.00	153	--	--
	06/17/02	1520		12.18	16.03	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	105	--	--
	12/11/02	0957		11.00	17.21	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	122	--	--
	06/25/03	1325		13.26	14.95	0.00	<50.0	0.670	<0.500	<0.500	<1.00	<100	--	--
	12/09/03	1450		11.98	16.23	0.00	<50.0	<0.200	<0.500	<0.500	<1.00	186	--	--
	05/18/04	1417		12.97	15.24	0.00	<50.0	<0.200	<0.500	0.528	1.62	<391	--	--
	05/27/05								Well Destroyed					

Table 1
Groundwater Elevation and Analytical Data

Former Delta Western/Chevron Bulk Terminal 8-2307
9203 Cessna Drive
Juneau, Alaska

Well Number	Date Sampled	Time Sampled	Well Elevation (feet,TOC)	Depth to Water (feet)	Groundwater Elevation (feet)	SPH Thickness (feet)	GRO (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	DRO (µg/l)		RRO (µg/l)	VOCs (µg/l)
MW-4	06/06/00	1550	28.39	3.85	24.54	0.00	1,910	<2.50	<2.50	63.3	310	125,000		<8,250	ND
	12/09/00	1800		2.32	26.07	0.00	1,180	2.58	<5.00	46.3	96.5	66,200		<8,250	--
	03/24/01	1003		3.35	25.04	0.00	1,000	1.64	<2.50	50.3	121	22,300		--	--
	06/19/01	0955		4.08	24.31	0.00	948	1.48	<1.25	39.8	82.1	22,200		--	--
	06/17/02	1605		4.17	24.22	0.00	1,050	1.00	<0.500	51.7	97.9	33,200		--	--
	12/11/02	0930		2.25	26.14	0.00	921	0.910	1.25	44.8	88.0	29,300		--	--
	06/25/03	1330		4.14	24.25	0.00	833	1.28	1.07	48.5	79.5	22,200		--	--
	12/09/03	1410		3.66	24.73	0.00	537	1.49	<2.50	51.7	54.7	27,500		--	--
	05/18/04	1525		4.74	23.65	0.00	2,200	1.39	<1.00	49.2	78.6	12,800		--	--
	05/27/05	**0845**		**5.50**	**22.89**	**0.00**	**510**	**0.8**	<0.5	**37**	**40**	**24,000**		--	--
Dup	**05/27/05**	**0850**	--	--	--	--	**520**	**0.8**	<0.5	**38**	**41**	**35,000**	a	**--**	**--**

Definitions:

TOC = Top of casing
SPH = Separate-phase hydrocarbons
GRO = Gasoline range hydrocarbons
RRO = Residual range hydrocarbons
DRO = Diesel range hydrocarbons
VOCs = Volatile organic compounds by EPA Method 8260B
< = Not detected at or above specified detection limit shown
-- = Not applicable; Not analyzed
ND = Not detected at or above specified detection limits for all compounds
µg/l = micrograms per liter
Dup = Duplicate Sample
a = The observed sample pattern is not typical of diesel/#2 fuel oil

ATTACHMENT 1
FIELD AND LABORATORY PROCEDURES

Annual Groundwater Monitoring Report
Former Delta Western/Chevron Bulk Terminal 8-2307
9203 Cessna Drive
Juneau, Alaska
SECOR Project No.: 77CH.82307.02.0670
July 26, 2005

ATTACHMENT 1
FIELD AND LABORATORY PROCEDURES

SAMPLING PROCEDURES

The well sampling procedure consists of measuring the water level and checking for the presence of separate-phase hydrocarbons (SPH), using an oil-water interface probe. Wells not containing SPH are then purged of approximately three casing volumes of water (or to dryness) using a bailer. The equipment and purging method used for the current sampling event are noted on the attached field data sheets (Attachment 2). During purging, temperature, pH, and electrical conductivity were monitored using a Horriba U22 water quality meter. Purge operations are determined to be sufficient once these water quality parameters are stabilized to within +/- 10 percent. After purging, water levels are allowed to partially recover. Groundwater samples are collected using a clean Teflon bailer, placed into appropriate EPA-approved glass containers, labeled, logged onto chain-of-custody documents, and transported on ice to an Alaska state-certified laboratory.

LABORATORY PROCEDURES

Groundwater samples were analyzed for GRO by Alaska Method AK101, BTEX by EPA Method 8021B and DRO by Alaska Method AK102.

To assure the quality of the collected samples and to evaluate the potential for cross contamination during transport to the laboratory, a distilled-water trip blank accompanied the samples in the cooler. The trip blank was analyzed for the presence of volatile organic compounds of concern. For petroleum hydrocarbons, the trip blank is typically analyzed for GRO and BTEX.

PURGE AND RINSATE WATER DISPOSAL

Water generated during well sampling and equipment cleaning was broadcast onsite in the vicinity of each well.

ATTACHMENT 2
FIELD DATA SHEETS

Annual Groundwater Monitoring Report
Former Delta/Western Chevron Bulk Terminal 8-2307
9203 Cessna Drive
Juneau, Alaska
SECOR Project No.: 77CH.82307.02.0670
July 26, 2005

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 77CH.82307.03 PURGED BY: C. Jonnck WELL I.D.: MW-4

CLIENT NAME: ChevronTexaco SAMPLED BY: C. Jonnck SAMPLE I.D.: MW-4-0505 27

LOCATION: Chevron Bulk Plant 82307. Juneau, AK QA SAMPLES: _____

DATE PURGED 5/27/05 START (2400hr) 0800 END (2400hr) 0840

DATE SAMPLED 5/27/05 SAMPLE TIME (2400hr) 0845 (Duplicate 0850)

SAMPLE TYPE: Groundwater X Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" X (0.17) 3" _____ (0.38) 4" _____ (0.67) 5" _____ (1.02) 6" _____ (1.50) 8" _____ (2.60) Other _____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 9.5 CASING VOLUME (gal) = 0.68

DEPTH TO WATER (feet) = 5.5 CALCULATED PURGE (gal) = 2.04

WATER COLUMN HEIGHT (feet) = 4 ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	COND. (umhos/cm)	ORP	DO	pH (units)	Salinity (%)	COLOR (visual)	TURBIDITY (NTU)
5/27/05	0830		11.5	0.532	-101	4.80	4.75	0.0		198.0
5/27/05	0835		11.1	0.401	-114	3.69	5.57	0.0		79.2
5/27/05	0835		10.89	0.406	-111	2.73	5.63	0.0		155
5/27/05	0840		10.7	0.402	-84	7.73	5.66	0.0		364

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 5.47 SAMPLE TURBIDITY: _____

80% RECHARGE: ___ YES ___ NO ANALYSES: GRO, DRO & BTEX

ODOR: Strong hydrocarbon SAMPLE VESSEL / PRESERVATIVE: _____

PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
X Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

Other: _____

Pump Depth: _____

SAMPLING EQUIPMENT

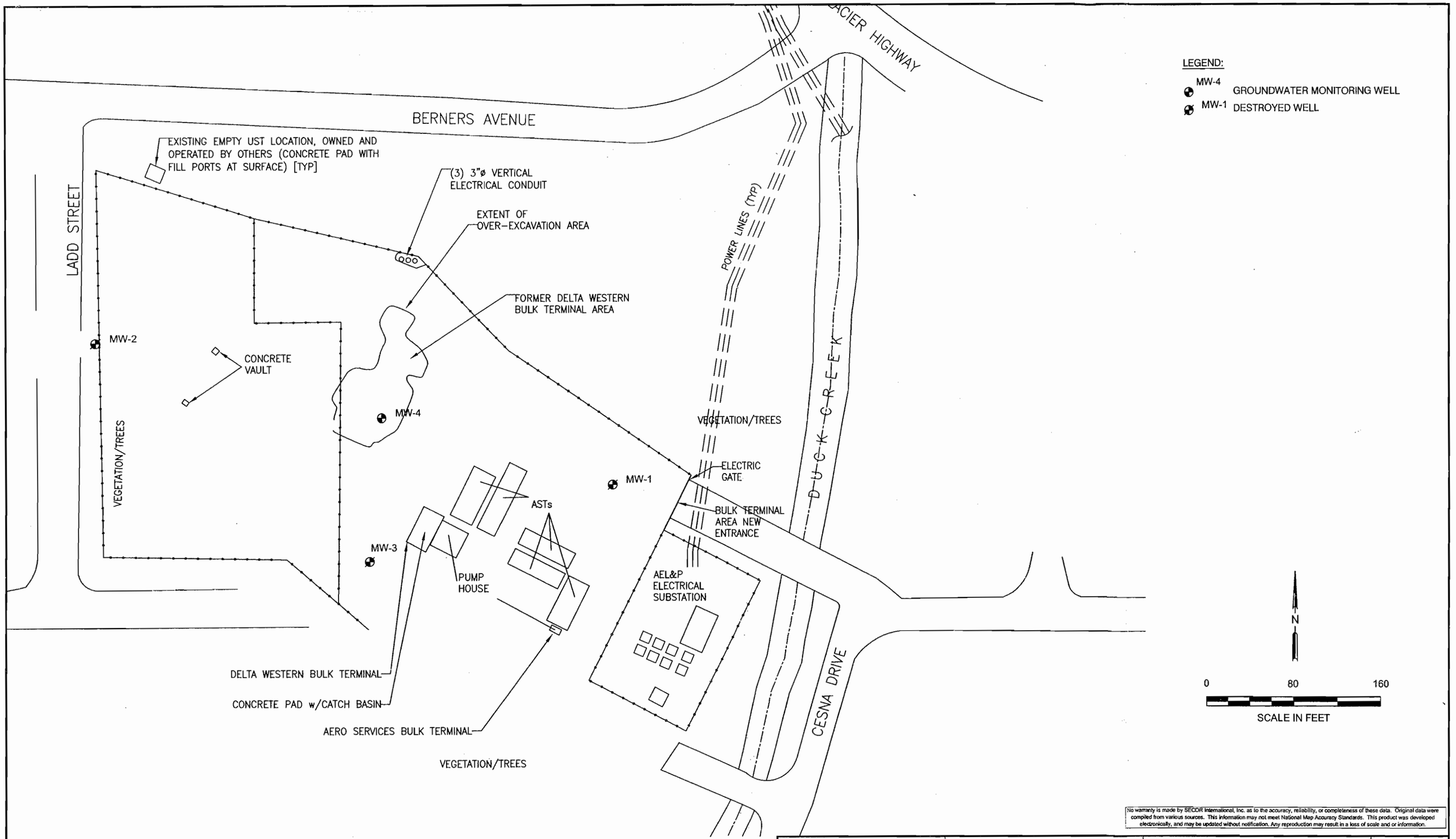
___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
X Bailer (Teflon)
___ Bailer (___ PVC or ___ disposable)
___ Bailer (Stainless Steel)
___ Dedicated

Other: _____

WELL INTEGRITY: Good LOCK#: _____

REMARKS: _____

SIGNATURE: _____ Page ___ of ___



SECOR
3017 KILGORE ROAD, SUITE 100
RANCHO CORDOVA, CALIFORNIA
PHONE: (916) 861-0400/861-0430 (FAX)

FOR:
FORMER DELTA WESTERN/
CHEVRON BULK TERMINAL 82307
9203 CESSNA DRIVE
JUNEAU, ALASKA

SITE PLAN

FIGURE: 2

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77CH.82307.00	DWR	BR	CH	6/27/05

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