February 5, 1996

Alameda County Environmental Health Services 1131 Harbor Bay Parkway Alameda, Ca. 94502-6577

Attention:

Ms. Eva Chu

Subject:

Report of Quarterly Monitoring

Corwood Car Wash UST Site

6973 Village Parkway Dublin, California CWEC 20572-001-01 2/7/96 @ Need to continue amp. do 2 mar 9to, then I'll walvate for she closure Need data to show stablidy of plume, brodegradadam occuring.

Ladies and Gentlemen:

This report documents recent quarterly monitoring of three ground water monitoring wells (MW-1, MW-2, and MW-3) located at the subject site in Dublin, California (See Figure 1 and Figure 2). This letter report summarizes the work performed and the results of these monitoring activities.

Description of Sampling Activities

On October 5, 1995, Century West Engineering Corporation purged and sampled ground water monitoring wells MW-1, MW-2 and MW-3 at the subject site. Purging and sampling was conducted in accordance with California LUFT Field Manual guidelines as follows:

- After unlocking and opening all three wells, the water level was measured to the nearest 0.01 foot with an electronic probe.
- Using a disposable PVC bailer, a single bail of ground water was taken from the well to check for the presence or absence of floating free product.
- Each well was purged of approximately three well volumes. During purging, temperature, pH, conductivity, and turbidity of the well water were periodically monitored and recorded until they stabilized. All purged water was stored onsite in a sealed 55-gallon metal drum. Ground water sampling data sheets are contained in Appendix A.



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■ After purging parameters had stabilized, ground water was poured directly from the bailer into two 40-ml VOA vials and one one liter amber jar. Each container was then tightly sealed with teflon lined septum, making sure that no air bubbles were present in the container. Each container was then labeled and placed in cold storage for transport to the analytical laboratory under formal chain-of-custody.

RESULTS OF QUARTERLY MONITORING

Hydrologic Conditions

Water depths were measured to the nearest 0.01 foot by Century West Engineering prior to purging. Calculated ground water flow gradient, which is shown on Figure 2, was to the south-southeast at approximately 0.007 vertical feet/horizontal foot. Purged water from MW-2 exhibited slight hydrocarbon odors and no visible hydrocarbon sheen. Purged water from MW-1 and MW-3 exhibited no hydrocarbon odors or hydrocarbon sheens.

Laboratory Analytical Results

Ground water samples from MW-1, MW-2, and MW-3 were analyzed for total petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene and xylenes (BTEX); and total petroleum hydrocarbons as diesel (TPH-D). Table 1 summarizes these analytical results. Laboratory data reports and chain-of-custody records are contained in Appendix B.

	Table 1 SUMMARY OF GROUND WATER ANALYTICAL RESULTS Corwood Car Wash UST Site										
Well	Sample	Ground			- 1	Concentration (p.	om)				
Number	Dale	Water Elevation 1	TPH-D	TPH-G	В	Т	Е	Х			
MW-1	06/09/93	325.32	ND(.100) ²	ND(0.05)	ND(.0005)	ND(.0005)	ND(.0005)	ND(.0005)			
	10/23/95	325.09	ND(0.05)	ND(0.05)	ND(.0005)	ND(.0005)	ND(.0005)	ND(.0005)			
MW-2	06/09/93	325.20	0.640	0.110	0.013	ND(.0005)	ND(.0005)	ND(.0005)			
	10/23/95	324.84	0.33 ³	0.244	ND(.0005)	ND(.0005)	ND(.0005)	ND(.0005)			
MW-3	06/09/93	325.34	ND(.100)	ND(0.05)	0.0005	ND(.0005)	0,0005	ND(.0005)			
	10/23/95	325.01	0.173	0.06	0.0006	ND(.0005)	ND(.0005)	ND(.0005)			



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1 - Ground water elevation in feet above mean sea level datum.

you have questions or require additional information.

- 2 Not detected above the value expressed in parentheses.
- 3 Laboratory report states: "The positive result appears to be a heavier hydrocarbon than Diesel."
- 4 Laboratory report states: "The result for Gasoline is unk[nown]. HC[hydrocarbon] which consists of a single peak."

Conclusions

Ground water analytical results from this monitoring event, as well as soil and ground water data from previous investigative activities, indicate no significant impact to ground water quality downgradient (south-southeast) from the USTs. TPH-D results in downgradient well MW-2 are extremely low, and no significant benzene concentrations were encountered in any of the wells. Based on these results, we believe that Alameda County Environmental Health Services should grant regulatory closure for this site.

We appreciate the opportunity to present this report for your review. Please contact us if

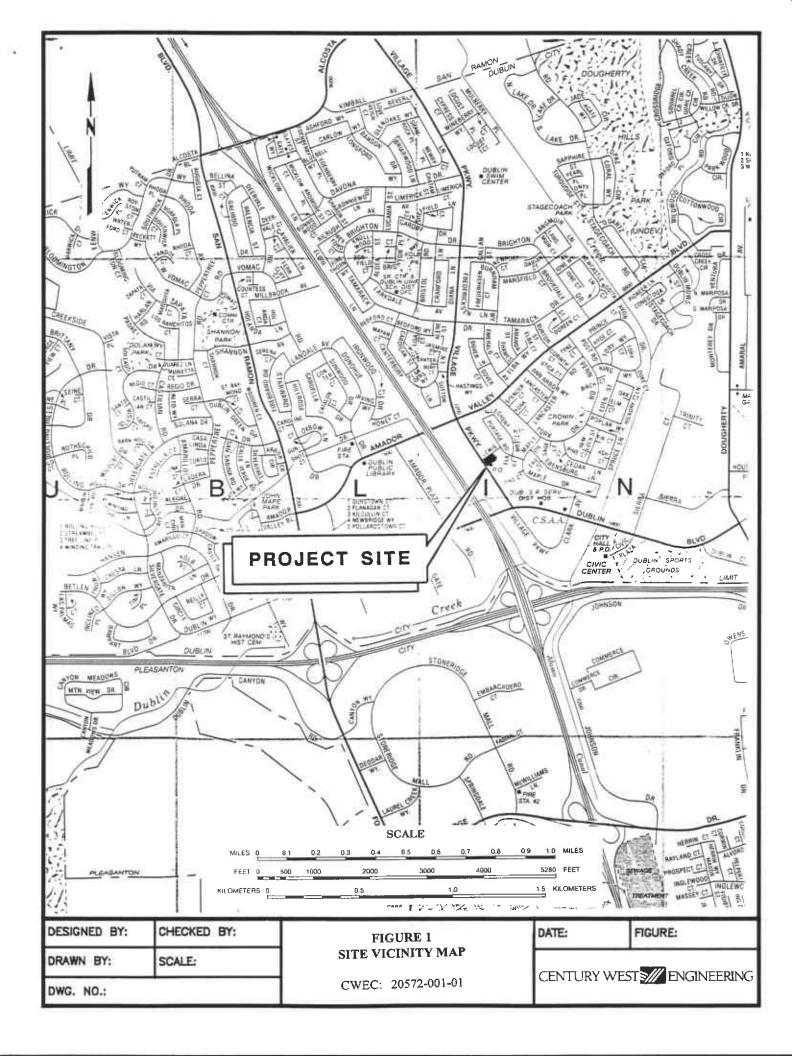
Very truly yours,

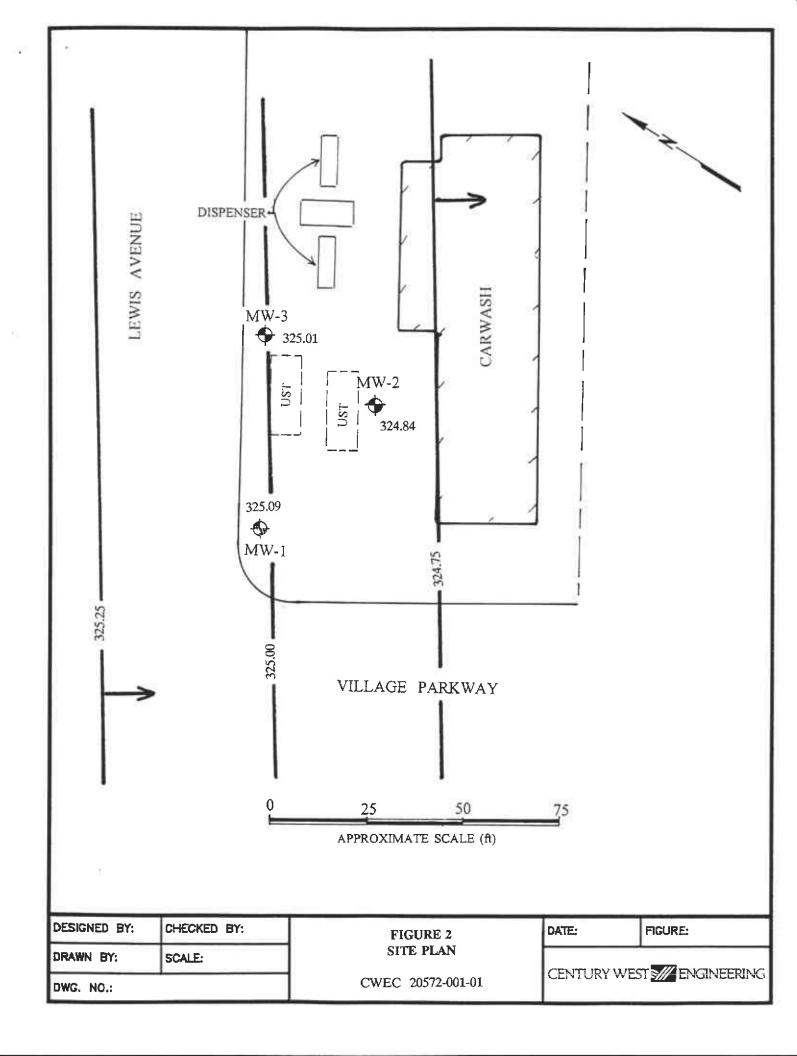
Robert S. Bogar Geologist

RSB/JEG:cc Enclosure James E. Gribi Registered Geologist California No. 5843









APPENDIX A GROUND WATER SAMPLING DATA SHEETS



GROUNDWATER SAMPLING RECORD

	NO. My-				,		
	t name <u>coal</u>			•			
DATE	<u>/U/5</u> TIM	E	ELE	V. TOP O	F CASING	<u></u>	 ,
WELL D	IAMETER 2 4	WE	LL DEPTH_	· · · · · · · · · · · · · · · · · · ·	SCREEN I	NTERVAL	·
	H20 I	EVEL IN	IIT. <u>6.7</u>	FIN	•		
CALC.	PURGE H20 COI	·	_FT. (X)	** = <u> </u>	(x)	3 =G	ALS.
LAB AN	ALYSIS				·-,	•	
LABORA	TORY		PU	RGE/SAMP	LE METHOD		
WEATHE	R CONDITIONS_						
*****	*****		*****	*****	*****	*****	****
	PUMPED	PUMP RATE	TEMP.			REMARKS	
TIME	(GALS.)	(GPM)	<u>(C)</u>			REMARKS (TURBIDITY)	
			715	7.25	7,30	clear no	<u>•/s</u> +
	2	•••	71.1	1,26	7,03	Stra	
	4		71.6	1.25	7.04		
•	<u> </u>		71.1	1,20	7.11	. //	
	8		70.8	1.22	7,08	* * .	
	-	•					
							
		- <u>-</u> -				<u></u>	
			· · · · · · · · · · · · · · · · · · ·				
						<u> </u>	
						<u></u>	
SAMPLE				· · · · · ·	<u> </u>		
REMARK	:s	·-·-		 			
		······································	<u></u>				
							<u> </u>

** $(2^{n} = 0.163 \text{ GAL/FT})$ $(4^{n} = 0.653 \text{ GAL/FT})$

GROUNDWATER SAMPLING RECORD

****	*****	*****	*****	*****	*****	******	*
SAMPLE	NOM	15-2	·	WELL NO	. <u>M</u> N	- 2_	_ `
PROJECT	r name	onverb	<u>(U.</u>	PROJECT	NO. 25	DS 72 -CKS 1-	₹
DATE	10/05 T	IME	ELE	V. TOP OF	CASING _		·
						TERVAL	
	H20	LEVEL IN	IIT. 7.50	FIN.			
CALC.						=GALS	5.
LAB AN	ALYSIS	 ,	·	. •	·• <u>•</u>	•	
LABORA'	rory		PU	RGE/SAMPI	E METHOD_		
WEATHE	R CONDITIONS	š					
*****			*****	*****	*****	*****	k *
TIME	VOLUME PUMPED (GALS.)			COND.	рН	REMARKS (TURBIDITY)	
	ے		77.0	1.38	197	clear-3	<u>1</u> cob
	2_		74.1		/93	TANK THE	. 51 —
	Ч		73.7	1,78	695	t.	
		·	73.2	1.22	701	l,	···
	· 8		V	1.25	"	ι,	
	•	·		·			
							_
	,	-		·			,
							
SAMPLE	CREW				· · · · · · · · · · · · · · · · · · ·		
REMARK	_						
			<u> </u>				
			·				
							

^{**} $(2^{n} = 0.163 \text{ GAL/FT}) (4^{n} = 0.653 \text{ GAL/FT})$



GROUNDWATER SAMPLING RECORD

******	*******
SAMPLE NO.	WELL NO. MW-3
PROJECT NAME CALLES C.U.	PROJECT NO. 745-72-CEN-CM
DATE 10/5 TIME 9:29 EI	LEV. TOP OF CASING
WELL DIAMETER 2 WELL DEPTH	screen interval
	5.5° FIN. 6.97
CALC. PURGE H20 COLFT. (X)) ** =GALS.
LAB ANALYSIS	
LABORATORYI	PURGE/SAMPLE METHOD
WEATHER CONDITIONS	
********	**********
VOLUME PUMP PUMPED RATE TEMP. TIME (GALS.) (GPM) (C)	REMARKS COND. PH (TURBIDITY)
 -	1.24 7.11 clear no obs
	1.21 7.05 SAME
71,7	
6 70.7	1/7 7.01
. 8 70.9	
	· · · · · · · · · · · · · · · · · · ·
M/M - 1 11	$M_{1}=2$ $M_{1}=2$
381.724	建2,34 对51,94
SAMPLE CREW	5.50
REMARKS 6.75 82	24.08 6.97
3,23.09	7,50 325.01
* Well pressurized)	24.84

** $(2^n = 0.163 \text{ GAL/FT}) (4^n = 0.653 \text{ GAL/FT})$

APPENDIX B

LABORATORY DATA REPORTS AND CHAIN OF CUSTODY RECORDS



Santa Rosa Division 3636 North Laughlin Road Suite 110 Santa Rosa, CA 95403-8226

Tel: (707) 526-7200 Fax: (707) 541-2333

Jim Gribi Century West Engineering 7950 Dublin Blvd., Ste 210 Dublin, CA 94568 Date: 10/23/1995

NET Client Acct. No: 75300

NET Job No: 95.03933 Received: 10/06/1995

Client Reference Information

Concord Car Wash/Proj. No. 20572-001-01

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2307.

Submitted by:

Phoject Cordinator

Enclosure(s)





Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

ELAP Cert: 1386 Page: 2

Ref: Concord Car Wash/Proj. No. 20572-001-01

SAMPLE DESCRIPTION: MW-1

Date Taken: 10/05/1995

Time Taken:

NET Sample No: 252783								Run
			Reporting	!		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015							10/13/1995	3260
DILUTION FACTOR*	1						10/13/1995	3260
as Gasoline	ND		0.05	mg/L	5030		10/13/1995	3260
METHOD 8020 (GC, Liquid)							10/13/1995	3260
Benzene	ND		0.5	ug/L	6020		10/13/1995	3260
Toluene	ND		0.5	ug/L	8020		10/13/1995	3260
Ethylbenzene	ND		0.5	ug/L	8020		10/13/1995	3260
Xylenes (Total)	ND		0.5	ug/L	8020		10/13/1995	3260
SURROGATE RESULTS		•					10/13/1995	3260
Bromofluorobenzene (SURR)	73			% Rec.	5030		10/13/1995	3260
METHOD M8015 (EXT., Liquid)						10/10/1995		
DILUTION FACTOR*	ı						10/10/1995	1088
as Diesel	ND		0.05	mg/L	3510		10/10/1995	1088
as Motor Oil	ND		0.5	mg/L	3510		10/10/1995	1088



Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

ELAP Cert: 1386 Page: 3

Ref: Concord Car Wash/Proj. No. 20572-001-01

SAMPLE DESCRIPTION: MW-2

Date Taken: 10/05/1995

Time Taken:

NET Sample No: 252784								Run
			Reporting	i		Date	Date	Batch
Parameter	Results	Flags	<u>Limit</u>	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015							10/13/1995	3260
DILUTION FACTOR*	1						10/13/1995	3260
as Gasoline	0.24	G1	0.05	mg/L	5030		10/13/1995	3260
METHOD 8020 (GC, Liquid)							10/13/1995	3260
Benzene	ND		0.5	ug/L	8020		10/13/1995	3260
Toluene	ND		0.5	ug/L	8020		10/13/1995	3260
Ethylbenzene	ND		0.5	ug/L	8020		10/13/1995	3260
Xylenes (Total)	ND		0.5	υ g /L	8020		10/13/1995	3260
SURROGATE RESULTS		•					10/13/1995	3260
Bromofluorobenzene (SURR)	84			% Rec.	5030		10/13/1995	3260
METHOD M8015 (EXT., Liquid)						10/10/1995		
DILUTION FACTOR*	1						10/10/1995	1088
as Diesel	0.33	DH	0.05	mg/L	3510		10/10/1995	1088
as Motor Oil	ND		0.5	mg/L	3510		10/10/1995	1088

DH : The positive result appears to be a heavier hydrocarbon than Diesel.

G1 : The result for Gasoline is an unk. HC which consists of a single peak.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

ELAP Cert: 1386 Page: 4

Ref: Concord Car Wash/Proj. No. 20572-001-01

SAMPLE DESCRIPTION: MW-3

Date Taken: 10/05/1995

Time Taken:

Run NET Sample No: 252785 Batch Reporting Date Date <u>Parameter</u> Results Flags Limit Units Method Extracted Analyzed No. TPH (Gas/BTXE, Liquid) 10/13/1995 3260 METHOD 5030/M8015 10/13/1995 3260 DILUTION FACTOR* 1 10/13/1995 3260 5030 mg/L 0.05 as Gasoline 0.06 10/13/1995 326D METHOD 8020 (GC, Liquid) 10/13/1995 3260 B020 Benzene 0.6 NDSC 0.5 ug/L 10/13/1995 3260 Toluene 0.5 ug/L 8020 8020 10/13/1995 3260 Ethylbenzene ND 0.5 ug/L ND ug/L 8020 10/13/1995 3260 Xylenes (Total) 0.5 10/13/1995 3260 SURROGATE RESULTS _ _ 10/13/1995 3260 5030 Bromofluorobenzene (SURR) 78 % Rec. METHOD M8D15 (EXT., Liquid) 10/10/1995 1088 10/10/1995 DILUTION FACTOR* 1 3510 10/10/1995 1086 0.05 mg/L as Diesel 0.17 DH 10/10/1995 1088 351D 0.5 mg/L as Motor Oil ΝD

DH : The positive result appears to be a heavier hydrocarbon than Diesel.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

ELAP Cert: 1386

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Ref: Concord Car Wash/Proj. No. 20572-001-01

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

		CCA	ccv				
	CCV	Standard	Standard				Run
	Standard	Amount	Amount		Date	Analyst	Batch
Parameter	& Recovery	Found	Expected	Units	Analyzed	Initials	Number
TPH (Gas/BTXE, Liquid)							
as Gasoline	106.0	0.53	0.50	mg/L	10/13/1995	aal	3260
Benzene	96.0	4.80	5.00	ug/L	10/13/1995	aal	3260
Toluene	101.6	5.08	5.00	ug/L	10/13/1995	aal	3260
Ethylbenzene	99.2	4.96	5.00	ug/L	10/13/1995	aal	3260
Xylenes (Total)	102.7	15.4	15.0	ug/L	10/13/1995	aal	3260
Bromofluorobenzene (SURR)	85.0	85	100	% Rec.	10/13/1995	aal	3260
METHOD M8015 (EXT., Liquid)							
as Diesel	91.1	911	1000	mg/L	10/10/1995	tts	1088
as Motor Cil	100.0	2000	2000	mg/L	10/10/1995	tts	1088



Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

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Ref: Concord Car Wash/Proj. No. 20572-001-01

METHOD BLANK REPORT

Parameter	Method Blank Атоипt Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE, Liquid)						
as Gasoline	ND	0.05	mg/L	10/13/1995	aal	3260
Benzene	ND	0.5	ug/L	10/13/1995	aal	3260
Toluene	ND	0.5	ug/L	10/13/1995	aal	3260
Ethylbenzene	ND	0.5	ug/L	10/13/1995	aal	3260
Xvlenes (Total)	ND	0.5	ug/L	10/13/1995	aal	3260
Bromofluorobenzene (SURR)	86		* Rec.	10/13/1995	aal	3260
METHOD M8015 (EXT., Liquid)						
as Diesel	ND	0.05	mg/L	10/10/1995	tts	1088
as Motor Oil	ND	0.5	mg/L	10/10/1995	tts	1088



Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

ELAP Cert: 1386 Page: 7

Ref: Concord Car Wash/Proj. No. 20572-001-01

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

	Matrix Spike	Matrix Spike Dup		Spike	Sample	Matrix Spike	Matri: Spike Dup.	ĸ	Date	Run	Sample
Parameter	₹ Rec.	% Rec.	RPD	Amount	Conc.	Conc.	Conc.	Units	Analyzed	Batch	Spiked
METHOD 5030/8015-M (Shell)											252774
Purgeable TPH	98.D	92.0	6.3	0.5	0.52	1.01	0.98	mg/L	10/13/1995	3260	252774
Toluene	92.7	91.3	1.5	28.6	2.3	28.8	28.4	ug/L	10/13/1995	3260	252774



Client Acct: 75300 NET Job No: 95.03933 Date: 10/23/1995

ELAP Cert: 138 Page: 8

Ref: Concord Car Wash/Proj. No. 20572-001-01

LABORATORY CONTROL SAMPLE REPORT

Duplicate

					Dupitou					
		Duplicate		LCS	LCS	LCS				
	LCS	LCS		Amount	Amount	Amount		Date	Analyst	Run
Parameter	* Recovery	* Recovery	RPD	Found	Found	Expected	Units	Analyzed	Initials	Batch
METHOD M8015 (EXT., Liquid)										
as Diesel	69.5			1.39		2.00	mg/L	10/10/1995	tts	1088

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



KEY TO ABBREVIATIONS and METHOD REFERENCES

Less than; When appearing in results column indicates analyte
not detected at the value following. This datum supercedes
the listed Reporting Limit.

: Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample,

wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample,

wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.



NE	ENVIRONMENTAL ® TESTING, INC.	COMPANY ADDRESS PHONE PROJECT NAME/L	OCATION CAY	HECURD LEST ENCINE FAX WOOD CAN WA! STI-SUL-OI GRIBI	5 H PO. NO.	2
PRINT NAME)	b Bry- sign	for By		ANALYSES	To assist us in selecting the proper method Is this work being conducted for regulatory compliance monitoring? Yes	No
PRINT NAME)	SIGN	IATURE	# and Type of Containers	27/2	Is this work being conducted for regulatory enforcement action? Yes Which regulations apply: FICRA NPDES W	No
DATE TIME	SAMPLE ID/DESCRIPTION	GRAB	HCI NAOH HNO3 H ₂ SO ₄	1 17 94 1 1 1	UST Drini Other	king Water None
10/5	mu-2	<u>L</u>	2 2 2 2 7 2	V-	ST TA	•
	MUS - 3	4	2 2			****
					CUSTODY SEALED Date/0/5/5_Time/032/Initials SEAL INTACT?	P
					YesVNoInitialsK	
		(NO) PLE REMAINDER TO CI	VOLATILES FREE LIENT VIA	SENT AND INTACT? YES / NO OF HEADSPACK! YES NO	Bottles supplied by NET(YES/ NO	6
RELINQUISHED	DATE TIME 10/5 13:14	RECEIVED BY: REMARKS:	SAMPLE REMAINDE 1 45/5/9 mx 13:10	RELINQUISHED BY:	DATE TIME RECEIVED FOR NET BY:	M 08:00)