



ENVIRONMENTAL PROTECTION

VGf Excellence

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August 7, 1997

Ms. Madulla Logan
Hazardous Materials Specialist
Alameda County Environmental Protection Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

8/12/97

Re: Completion of Remedial Action Plan for 6780 Sierra Court, Suite I, Dublin, CA

Dear Ms. Logan:

This letter is to advise you that American Xtal Technology has completed its remedial action plan for the leased space, referenced above, that we occupied through July 31, 1997.

The executed plan was in substantial conformance with the documents submitted to you initially on April 25 and, as revised, on July 15, 1997.

American Xtal Technology contracted with Synergy Environmental of Hayward, CA to: (1) remove and properly dispose of process-related equipment, piping, exhaust system ventilation (ductwork and fan units), non-recoverable equipment (such as benches, cabinets, shelving) inorganic arsenic-contaminated facility elements (essentially floor tile and/or process-stained drywall); (2) perform certain demolition activities, or remove certain "tenant improvements", as required by the property owner; and lastly, (3) clean the space.

Wastes contaminated with trace amounts of inorganic arsenic (Non-RCRA Hazardous Wastes), generated as a result of plan execution, were transported to and disposed of at Chemical Waste Management's Kettleman Hills Facility. Please refer to Uniform Hazardous Waste Manifests: 96851704 and 96270283 in Attachment A.

Other wastes (RCRA and Non-RCRA Hazardous Wastes) were managed with the contracted assistance of Laidlaw Environmental Services. An inventory of these wastes is provided by referring to Uniform Hazardous Waste Manifests: 96771288, 9660412, 9660413, and 96804761 in Attachment B.



Non-waste, or reusable, chemicals that were present on-site were re-packaged and shipped, again with the assistance of Laidlaw Environmental, to our Fremont facility. These materials were shipped under a standard Bill of Lading (see Attachment C).

Closure of our Conditional Authorized Waste Treatment Unit (i.e., Conditional Authorization: A1 for 6780 Sierra Court #1, Dublin CA 94568, EPA ID: CAD983595976 as authorized by the Department of Toxic Substances Control on 11/28/94) was carried out in the month of July and was completed on July 29, 1997. (The site's industrial wastewater discharge permit with the Dublin San Ramon Services District expired on June 30.) As part of the closure process to this treatment unit, the tanks were emptied, cleaned, and disposed of as Non-RCRA Hazardous Waste. Unit mixers and filter press were decontaminated, packaged, and shipped, for possible future use, to our Fremont facility. Treatment waste residues (i.e. filter cake and/or cleanup debris) were manifested and disposed of as regulated hazardous wastes. And, wastewater discharge lines, install by AXT to serve the unit were removed from all former production areas. Mr. Erik Kuefner, Industrial Waste Inspector II, for the Dublin San Ramon Services District, conducted a final close-out walkthrough of the facility on July 25, 1997. Please see Attachment D for: (1) a copy of the Department of Toxic Substances Control's original "Acknowledgement of Units Operating under Conditional Authorization..."; and, (2) a copy of the letter, and supporting documentation, dated July 29, to Mr. Kuefner on the final disposition of wastewater treatment drain lines following his earlier close-out inspection of July 25.

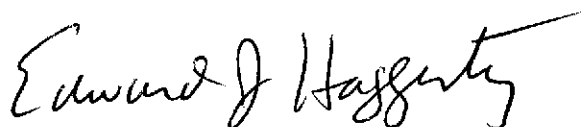
Finally, American Xtal Technology conducted a review and evaluation of the effectiveness of the cleaning of the space performed by Synergy Environmental. Wipe samples for inorganic arsenic were collected on two occasions to assess the effectiveness of the cleanup (HEPA vacuuming and final wet wiping of work area surfaces). Results of "OSHA" wipes, samples collected on Whatman 42 filters using deionized water as a wetting agent over 100 square centimeters, are presented in detail in Attachment E. Briefly, on 28 July seven (7) wipe samples were collected at random in the space. Laboratory analysis indicated inorganic arsenic levels in the range of from 7 to 57 micrograms per 100 centimeters ($\text{ug}/100 \text{ cm}^2$) of wiped surface area, with an average (mean) of $22 \text{ ug}/100 \text{ cm}^2$. On 31 July, following final cleaning, eleven (11) additional wipes were collected. Results for 10 of these samples indicate trace inorganic arsenic levels in the range of from <3 to $18 \text{ ug}/100 \text{ cm}^2$, with an average (mean) of approximately $7.2 \text{ ug}/100 \text{ cm}^2$. Sample 11, "hall near lobby", registered $27 \text{ ug}/100 \text{ cm}^2$. This number is treated separately here because it was taken in this area in advance of final cleaning. Based on a comparison of results for July 28 and July 31, we would anticipate that final cleaning in this area should have achieved a reduction similar to the ones previously observed (minimum 0.5 to maximum of 10) yielding a background level of from 3 to $13 \text{ ug}/100 \text{ cm}^2$ in this area. Laboratory analysis was performed by Clayton Environmental. The instrumental detection limit for each wipe was 3 ug.

American Xtal Technology believes that we have achieved the feasible limit of control for trace amounts of inorganic arsenic following our remedial plan. As a point of reference, there are currently no occupational exposure standards established for inorganic arsenic surface contamination. Prudent practice, we acknowledge, requires achieving the lowest feasible limit. Stringent standards set for lead abatement in residential structures permit trace amounts of lead, a heavy metal with similar toxicity and regulatory status as inorganic arsenic, on the order of 11 ug/100 cm², or 100 ug/ft², on floors within a residence. We believe our average of 7 ug/100 cm², or 63 ug/ft², applies a similarly rigorous standard, particularly with respect to cleanup for a non-residential, or commercial, facility. In summary, through the execution of our remedial plan, we believe we have exercised due diligence and have met our obligations to both the property owner and to future commercial occupants of this space. We would request your review of this information and your acknowledgment of our closure activities.

Should you have questions, please do not hesitate to contact us.

Respectfully submitted,

American Xtal Technology

A handwritten signature in black ink that reads "Edward J. Haggerty". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

Edward J. Haggerty, CIH
Manager of EH&S

cc: Mr. Sam Genirberg
B/G Management
2520 College Avenue
Berkeley, CA 94704
Tel. 510-848-3608
Fax 510-848-3618

Attachment A

Uniform Hazardous Waste Manifests
Chemical Waste Management
Kettleman Hills Facility

→ Tanks &
Waste
Shetrock.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1

Information in the shaded areas is not required by Federal law.

C A D 9 8 3 5 9 5 9 7 6

of 1

Generator's Name and Mailing Address
AMERICAN XTAL TECHNOLOGY
6780 SIERRA CT STE 1
DUBLIN CA 94568-2600
 4. Generator's Phone (415) 588-9652

5. Transporter 1 Company Name

6. US EPA ID Number

LUTREL

C A D 0 8 3 0 0 3 6 9 9

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
35251 OLD SKYLINE ROAD
KETTLEMAN CITY CA 93239

10. US EPA ID Number

C A T 0 0 0 6 4 6 1 1 7

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

a. **NON RCRA HAZARDOUS WASTE SOLID, DEBRIS CONTAMINATED WITH TRACE ARSENIC**

12. Containers

No.

Type

13. Total Quantity

14. Unit Wt/Vol

901

cm

001930

Y

15. Special Handling Instructions and Additional Information

Call Emergency Response Information (800)424-9300

SR# 382101

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Edward J. Haggerty

Signature

Edward J Haggerty

Month

Day

Year

07 18 17

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Mike Dake

Signature

Mike Dake

Month

Day

Year

07 18 17

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month

Day

Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month

Day

Year

DO NOT WRITE BELOW THIS LINE.

96851704
 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550
 GENERATOR
 FACILITY

96270283

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR
 TRANSPORTER
 FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. ADH82FET10R172		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law.							
3. Generator's Name and Mailing Address ADH82FET10R172						A. State Manifest Document Number 96270283									
4. Generator's Phone						B. State Generator's ID									
5. Transporter 1 Company Name			6. US EPA ID Number			C. State Transporter's ID									
7. Transporter 2 Company Name						D. Transporter's Phone									
9. Designated Facility Name and Site Address						E. State Transporter's ID									
10. US EPA ID Number						F. Transporter's Phone									
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol					
a. ...						No. Type		Quantity		Waste Number					
b. ...										EPA Code					
c. ...										EPA Code					
d. ...										EPA Code					
15. Special Handling Instructions and Additional Information EPA Emergency Response 1.800.424.8802 #3332						16. HANDLING CODES FOR WASTES LISTED ABOVE									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.															
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.															
Printed/Typed Name Edward J. Haggerty				Signature Edward J. Haggerty				Month 01		Day 25		Ye 97			
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature Doug Keen				Month 01		Day 25		Ye 97	
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature				Month		Day		Ye	
19. Discrepancy Indication Space															
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						Signature				Month		Day		Ye	

DO NOT WRITE BELOW THIS LINE.

Attachment B

Uniform Hazardous Waste Manifests
Laidlaw Environmental

*chemical wastes -
leftover*

96771288
 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550
 GENERATOR
 TRANSPORTER
 FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CAD98359597671288		Manifest Document No. 88		2. Page 1 of 2		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address AMERICAN XTAL TECHNOLOGY INC. 6780 SIERRA COURT, SUITE 1 DUBLIN, CA 94568 Generator's Phone: (510) 683-5900 ATTN: ED HOGGERTY				In Emergency see box # 15		A. State/Manifest Document Number 96771288		B. State/Generator ID HAWMOB607271197	
5. Transporter 1 Company Name CUSTOM ENVIRONMENTAL TRANSPORT (DEED980918858)				6. US EPA ID Number DEED980918858		C. State/Transporter ID C10762-5176		D. Transporter Phone (916) 762-5176	
7. Transporter 2 Company Name SAFeway Chemicals				8. US EPA ID Number DEEB101060021713		E. State/Transporter ID 200 222 0177		F. Transporter Phone 909 222 0177	
9. Designated Facility Name and Site Address ROLLINS OPC INC. 5756 ALBA STREET LOS ANGELES CA 90058				10. US EPA ID Number CAD050806850		G. State/Facility ID CA 011000000019		H. Facility Phone 213 385 306	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity		14. Unit Wt/Vol	
a. Waste methanol, 3, UN1230, PG II				No. Type		Quantity		Wt/Vol	
				001 DM		00425		25 P	
b. Waste hydrofluoric acid, solution, 8, UN1790, PG II				001 DF		00050		5 P	
c. Waste sulfuric acid, 8, UN1830, PG II				001 DF		00500		5 P	
d. Waste batteries, wet, filled with acid, 8, UN2094, PG III				001 DF		00030		3 P	
15. Special Handling Instructions and Additional Information inhalation, ingestion, and skin contact. Use protective gear when handling waste. Avoid 424-9300, mention 'Labpack'. In emergency call Chemtrec at 1-800-424-8802. Emergency Response #'s 11a. 128 lib. 157 lic. 137 iid. 154 Project LAAX1 If undeliverable return to generator, B.O.L.#									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name Edward J. Haggerty				Signature Edward J. Haggerty		Month Day Year 06/10/97			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Michael P. Lepisto				Signature Michael P. Lepisto		Month Day Year 06/10/97			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name LYLE Appleton				Signature Lyle Appleton		Month Day Year 06/11/97			
19. Discrepancy Indication Space									
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name LAURA PALM				Signature Laura Palm		Month Day Year 06/18/97			

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDf SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
 (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

FORM HAZARDOUS WASTE MANIFEST
Continuation Sheet

21. Generator's US EPA ID No. CAD983595976	Manifest Document No. 71288	22. Page 02	Information in the shaded areas is not required by Federal law.
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Generator's Name
AMERICAN XTAL TECHNOLOGY INC.
6780 SIERRA COURT, SUITE I
DUBLIN, CA 94568-
(510)683-5900 ATTN: ED HAGGERTY

L. State Manifest Document Number
CA96771288

M. State Generator's ID
HAHQ360Z7192

24. Transporter Company Name _____ 25. US EPA ID Number _____

N. State Transporter's ID _____

26. Transporter Company Name _____ 27. US EPA ID Number _____

O. Transporter's Phone _____
P. State Transporter's ID _____
Q. Transporter's Phone _____

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers		30. Total Quantity	31. Unit Wt/Vol	H. Waste No.
	No.	Type			
a. Combustible liquid, n.o.s., (aliphatic hydrocarbons), 3, NA1993, PG III	001	DM	00300	P	214 NONE
b. Hazardous waste, solid, n.o.s., (contains gallium arsenide), 9, NA3077, PG III	001	DM	00400	P	181 D004
c. Hazardous waste, solid, n.o.s., (contains gallium arsenide), 9, NA3077, PG III	001	DM	00500	P	181 D004
d. Non-RCRA Hazardous waste, solid, (empty drum)	001	DF	00025	P	512 NONE
e. Non-RCRA Hazardous waste, solid, (empty drum)	001	DM	00030	P	512 NONE
f. _____					
g. _____					
h. _____					
i. _____					

GENERATOR

3. Additional Descriptions for Materials Listed Above
 28a. OP-020869-141
 28b. OP-025888-821
 28c. OP-329315-371
 28d. OP-329315-807
 28e. _____
 28f. _____
 28g. _____
 28h. _____

4. Handling Codes for Wastes Listed Above
 28a. _____
 28b. _____
 28c. _____
 28d. _____
 28e. _____
 28f. _____
 28g. _____
 28h. _____

32. Special Handling Instructions and Additional Information
 inhalation, ingestion, and skin contact. Use protective gear when handling waste. Avoid 224-2300, mention Labpack, if undeliverable return to generator. In emergency call Chemtrec at 1-800-424-9300. Emergency Response #'s 28a. 128 28b. 171 28c. 171 28d. 171 28e. 171
 Project 215-94-0320-042

TRANSPORTER	33. Transporter Acknowledgement of Receipt of Materials	Date
	Printed/Typed Name _____ Signature _____	Month Day Year
TRANSPORTER	34. Transporter Acknowledgement of Receipt of Materials	Date
	Printed/Typed Name _____ Signature _____	Month Day Year

35. Discrepancy Indication Space



ORIGINAL-RETURN TO GENERATOR

96604012

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CA1D19K835915976	Manifest Document No. 01410112	2. Page 1 of	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address American X-Tal Technology Inc. 67806 Sierra Court, Suite I Dublin, CA 94568			A. State Manifest Document Number 966040		
4. Generator's Phone (510) 683-5400 Attn: ED Haggerty		B. State Generator ID HAHQ360211192			
5. Transporter 1 Company Name Custom Environmental Transport		C. State Transporter ID 730992167001			
6. US EPA ID Number DIED19109118858		D. Transporter's Phone 730992167001			
7. Transporter 2 Company Name		E. State Transporter ID			
8. US EPA ID Number		F. Transporter's Phone			
9. Designated Facility Name and Site Address Solvent Services Co. Inc. DBA Lactaw 1021 Berenysen Road. San Joaquin 95131		G. State Facility ID			
10. US EPA ID Number CA1D101514191310		H. Facility Phone 916-935-5100			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit	
		No.	Type	Wt/Vol	
a. RG Waste Methanol, 3, un 1230, PBII (Dool)		0101	DM	000120	G
b. Hazardous waste, liquid, NOS, (but in Arsenic sludge), 9, NA3082, PBIII		0101	DM	01011010	P
c. Hazardous waste, solid, NOS, (Gallium arsenide/metal oxides), 9, NA3077, PBIII		0112	DM	009160	P
d. Non-RCRA Hazardous waste, solid, (Filter Press Cake)		0102	DM	0014100	P
Additional Descriptions for Materials Listed Above		Handling Code for Waste Listed Above			
15. Special Handling Instructions and Additional Information Use protective equipment handle waste, Avoid inhalation, ingestion, and skin contact. In emergency call Chemtrec at 1800-424-9300. DAT, Emergency response #; 11A) 131 HB) 171 11C) 171 11D) None. IF Destination unavailable, return to generator.					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name Edward J. Haggerty		Signature <i>Edward J. Haggerty</i>		Month Day Year 01 21 91	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Greg Henowitz		Signature <i>Greg Henowitz</i>		Month Day Year 01 21 91	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name		Signature		Month Day Year	

DO NOT WRITE BELOW THIS LINE.

96604013

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CA D 98359597004013		Manifest Document No. of		2. Page 1 of		Information in the shaded areas is not required by Federal law.							
3. Generator's Name and Mailing Address American Xtal Technology Inc. 6780 Sierra Court, Suite I Dublin, CA 94568				State Manifest Document Number 9660401											
4. Generator's Phone (510) 683-5900 Attn: Ed Haggerty				State Generator ID 11130250291112											
5. Transporter 1 Company Name Custom Environmental Transport				State Transporter ID 02032021200											
6. US EPA ID Number DEP 980918858				State Transporter ID 02032021200											
7. Transporter 2 Company Name				State Transporter ID											
8. US EPA ID Number				State Transporter ID											
9. Designated Facility Name and Site Address Aptus, Inc (UT) 11400 North Aptus Road Aragonite UT 84029				State Facility ID E 31100											
10. US EPA ID Number UT D 9811552177				State Facility ID E 31100											
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste Number					
a. Waste Flammable Liquids, NOS, (Methanol Methyl Ethyl Ketone), 3, UN 1993, P&II				No. Type		Quantity		Wt/Vol		Waste Number					
				001 DF		00040		P		551 0001					
b. Waste Corrosive Liquids, Inorganic, NOS, (Ammonium Hydroxide, Monoethanolamine), 8, UN 3267, P&II				001 DF		00025		P		551 0002					
c. Waste Oxidizing Liquid, NOS, (Dichloroacetic Acid, Hydrogen Peroxide), 5.1, UN 3139, P&II				001 DF		00035		P		551 0003					
d. Non RCRA Hazardous waste, liquid (evaporant oil)				002 DF		00080		P		551 0004					
15. Special Handling Instructions and Additional Information USE protective gear when handling waste, Avoid inhalation ingestion, and skin contact. In emergency call Chemtrec at 1-800-424-9300. DAT Emergency response #: 11A) 128 11B) 153 11C) 140 11D) None. Alternate Facility Land Law Environmental (TX) Inc. TX 055141378, 2027 Battleground Rd. Deer Park, TX (713) 930-2300															
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.															
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.															
Printed/Typed Name Edward J Haggerty				Signature Edward J Haggerty				Month Day Year 07 21 91							
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name Greg Hemsworth				Signature Greg Hemsworth				Month Day Year 07 21 91			
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space															
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.															
Printed/Typed Name				Signature				Month Day Year							

DO NOT WRITE BELOW THIS LINE.

96804761
 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CA D 983595976	Manifest Document No. 04761	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address American XTAL Technology 6780 Sierra Ct Ste 1 Dublin, CA 95824-9456		State Manifest Document Number 96804761		State Generator ID CA D 983595976	
4. Generator's Phone (510) 833-0553 Attn: Ed Haggerty		State Transporter ID CA D 0010083121		Transporter Phone (608) 455-5000	
5. Transporter 1 Company Name La-dlaw Environmental Services		6. US EPA ID Number CA D 0010083121		State Transporter ID CA D 0010083121	
7. Transporter 2 Company Name		8. US EPA ID Number		Transporter Phone	
9. Designated Facility Name and Site Address Solvent Services dba La-dlaw Environmental Services 1021 Berregum Road San Jose, CA 95133		10. US EPA ID Number CA D 01594943110		State Facility ID CA D 01594943110	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	
a. Hazardous waste, solid, nps. (gallium arsenide/metal oxides), 9, NA 3077, PG III RQ (DW4)		0109 DM	011350	P	
b. Waste Phos phorus, amorphous, 4.1, UN 1338 PG III		0011 DM	00250	P	
c. Waste toxic solid, inorganic, nps, (Arsenic, mercury) liq, UN 3288, PG II		001 DM	00100	P	
d.					
15. Special Handling Instructions and Additional Information Use protective gear when handling waste. Avoid Inhalation, ingestion, or skin contact. In emergency call Tox Watch, 1-800-535-5053. If undeliverable return to generator. Emergency Response 11A)		Additional Descriptions for Hazardous Materials Above			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.					
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name Edward Haggerty		Signature <i>Edward Haggerty</i>		Month 01	Day 31
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature <i>Greg Haggerty</i>		Month 01	Day 31
Printed/Typed Name Greg Haggerty		Signature		Month	Day
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month	Day
Printed/Typed Name		Signature		Month	Day
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name		Signature		Month	Day
Printed/Typed Name		Signature		Month	Day

DO NOT WRITE BELOW THIS LINE.

Attachment C

Laidlaw Environmental
Chemical Shipment
Bill of Lading

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.
TO:
 Consignee Amytal
 Street 4371 Solar Way
 City Fremont State CA Zip Code 94538

FROM:
 Shipper Amytal
 Street 1750 Serra Ct.
 City Dublin State CA Zip Code 94568
 24 hr. Emergency Contact Tel. No. _____

Route _____ Vehicle Number _____

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class Identification Number (UN or NA) per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
2	X	Waste Flammable Liquids, NUS. 3, UN 1993	400 P			
1	X	Waste Oxidizing, Liquids, NUS. 5.1, UN 3139	200 P			
1	X	Corrosive Liquids, acids, ^{organic, NUS. 8} UN 3263	200 P			
2 ⁶	X	Sodium Hydroxide, solid, 8, UN 1823 PGII	300 P			
3	X	Hazardous Waste solid, NUS. AAA 3077 PGII	300 P			
2		Empty metal Drums (DOT)	50 P			

PLACARDS TENDERED: YES NO

REMIT C.O.D. TO: ADDRESS _____

Note — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
 The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ _____ per _____

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by Rail Highway Water (DELETE NON-APPLICABLE MODE OF TRANSPORT) according to applicable International and National governmental regulations.
 _____ Signature

COD Amt: \$ _____
 Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
 _____ (Signature of Consignor)

C.O.D. FEE: PREPAID COLLECT \$ _____
 TOTAL CHARGES: \$ _____
 FREIGHT CHARGES: FREIGHT PREPAID Check box if charges are to be collect

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of

said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
 Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Edward Hafferty
 PER Amytal

CARRIER Ground Haul
 PER W. H. Haul
 DATE 7/30/97

Permanent post-office address of shipper.

STYLE F60 LABELMASTER, Div. of American Labelmark Co., Chicago, IL 60646 312/478-09



Attachment D

DTSC Conditional Authorization 11/28/94

Letter to Mr. Kuefner
Dublin San Ramon Services District

If you have any questions regarding this letter, or have questions on operating requirements for your facility, please contact the nearest DTSC regional office, or this office at the letterhead address or phone number.

Sincerely,



Michael S. Horner, Chief
Onsite Hazardous Waste Treatment Unit
Permit Streamlining Branch
Hazardous Waste Management Program

Enclosure

cc: DENISE TSUJI
DTSC REGION 2
SURVEILLANCE & ENFORCEMENT BR.
700 HEINZ AVE., BLDG.F, 2ND FL.
BERKELEY, CA 94710

RAFAT A. SHAHID
ALAMEDA COUNTY
DEPT. OF ENVIRONMENTAL HEALTH
1131 HARBOR BAY PKWY, RM 250
ALAMEDA, CA 94502

ENCLOSURE 1

Units authorized to operate at this location:

UNDER CONDITIONAL AUTHORIZATION:

A1

UNDER CONDITIONAL EXEMPTION:



July 29, 1997

Mr. Erik Kuefner
Industrial Waste Inspector II
Regional Wastewater Treatment Facility
7399 Johnson Drive
Pleasanton, CA 94588

Re: Close-out Walkthrough and Removal of Drain Lines

Dear Erik:

Thank you again for your visit to 6780 Sierra Court, Suite I, on Friday, July 25, 1997.

I very much appreciate your flexibility with respect to completing this close-out walkthrough of our Dublin site in the month of July.


To update you, we have elected to hammer out and remove all wastewater discharge lines, and associated vents, from our former interior production area.

This action has effectively eliminated concern about the use of "these lines" for discharge into the main in the future.

For your reference, I am submitting photocopies of four original photographs that were taken to document this action. This work was carried out between July 28 and 29, 1997.

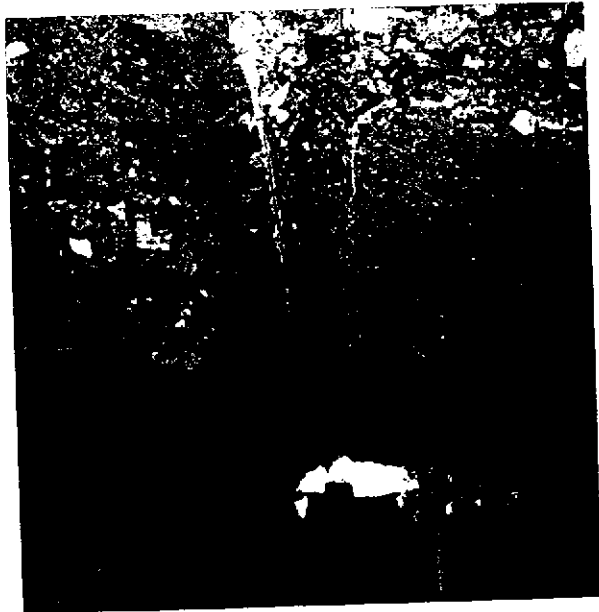
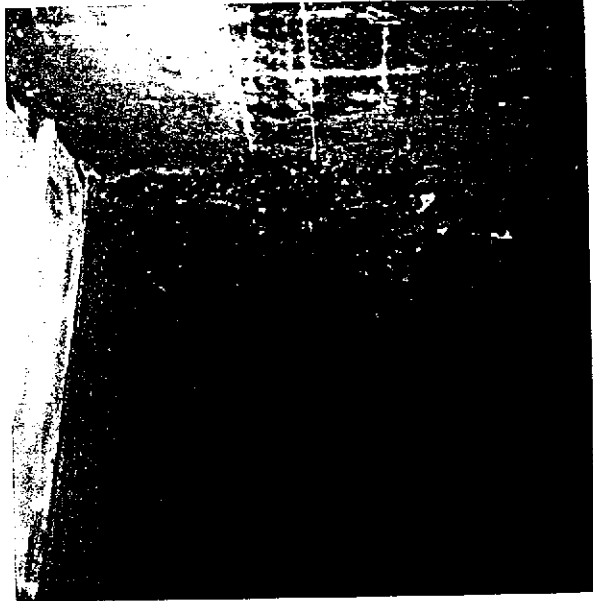
Should you have questions, please do not hesitate to contact me.

Sincerely,


Edward J. Haggerty, CIH
Manager, EH&S

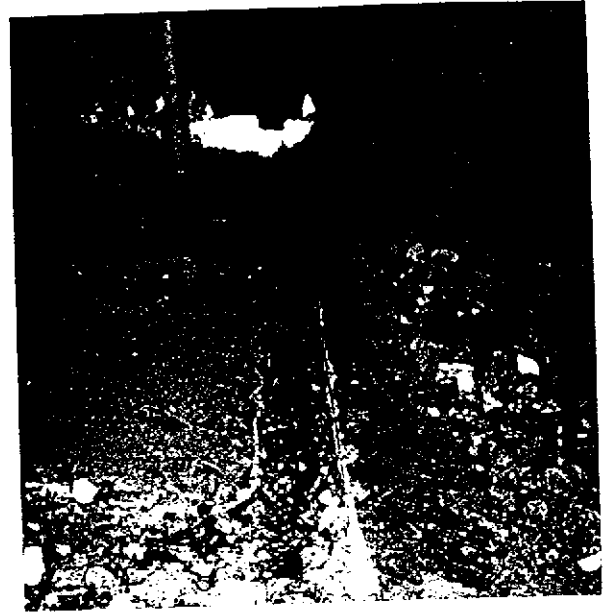
Attachment: photos



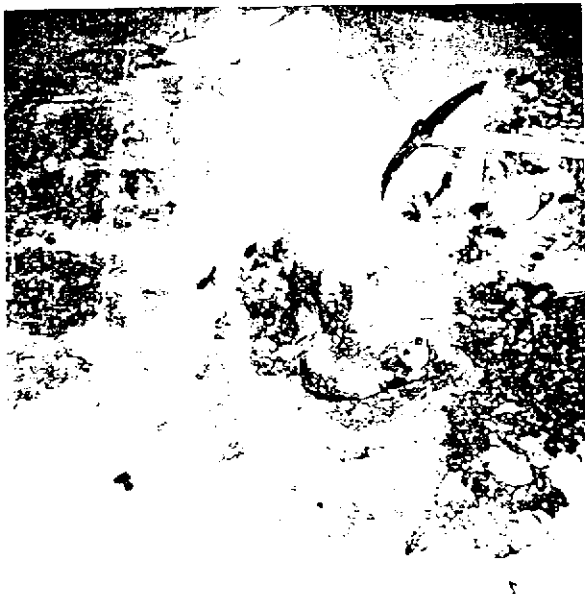




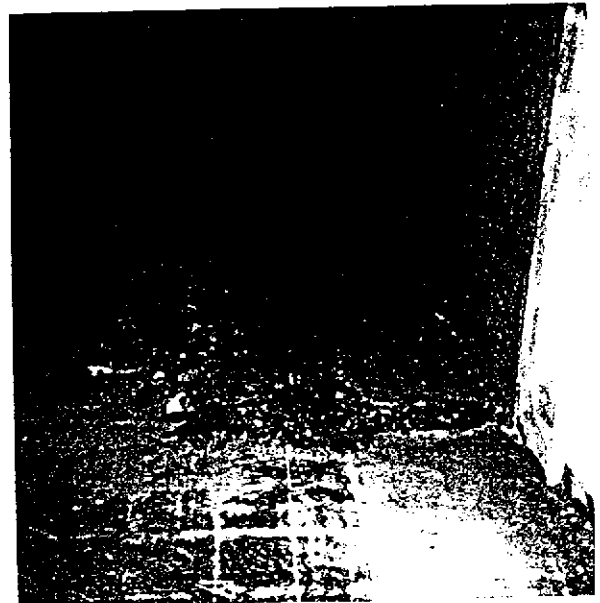
① Looking South



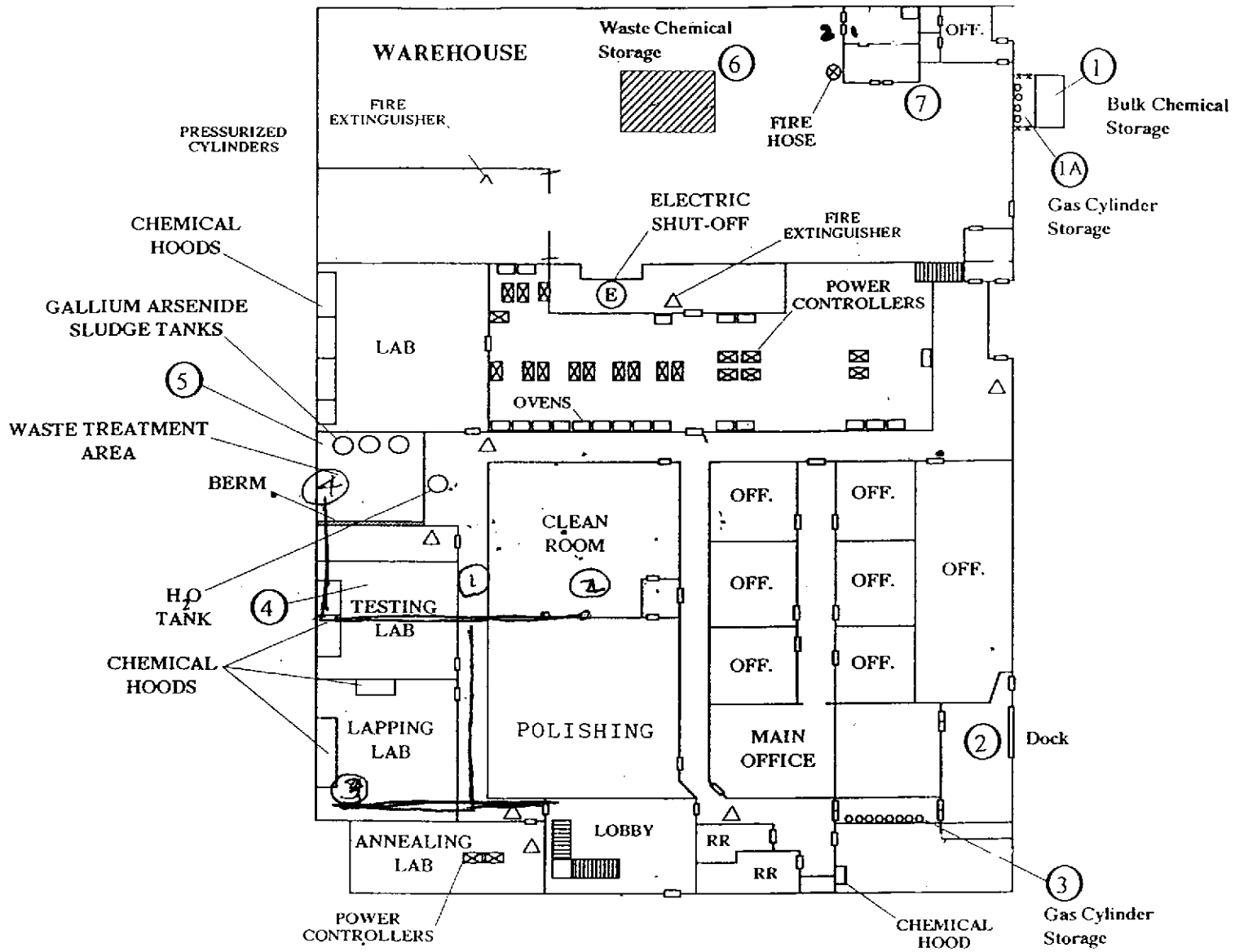
② Looking West



③ Looking East

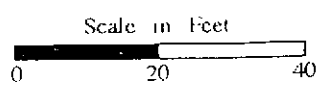


④ Looking South



AMERICAN XTAL TECHNOLOGY
 6780 SIERRA COURT
 DUBLIN, CALIFORNIA 94568

"SITE MAP" - MAIN BUILDING



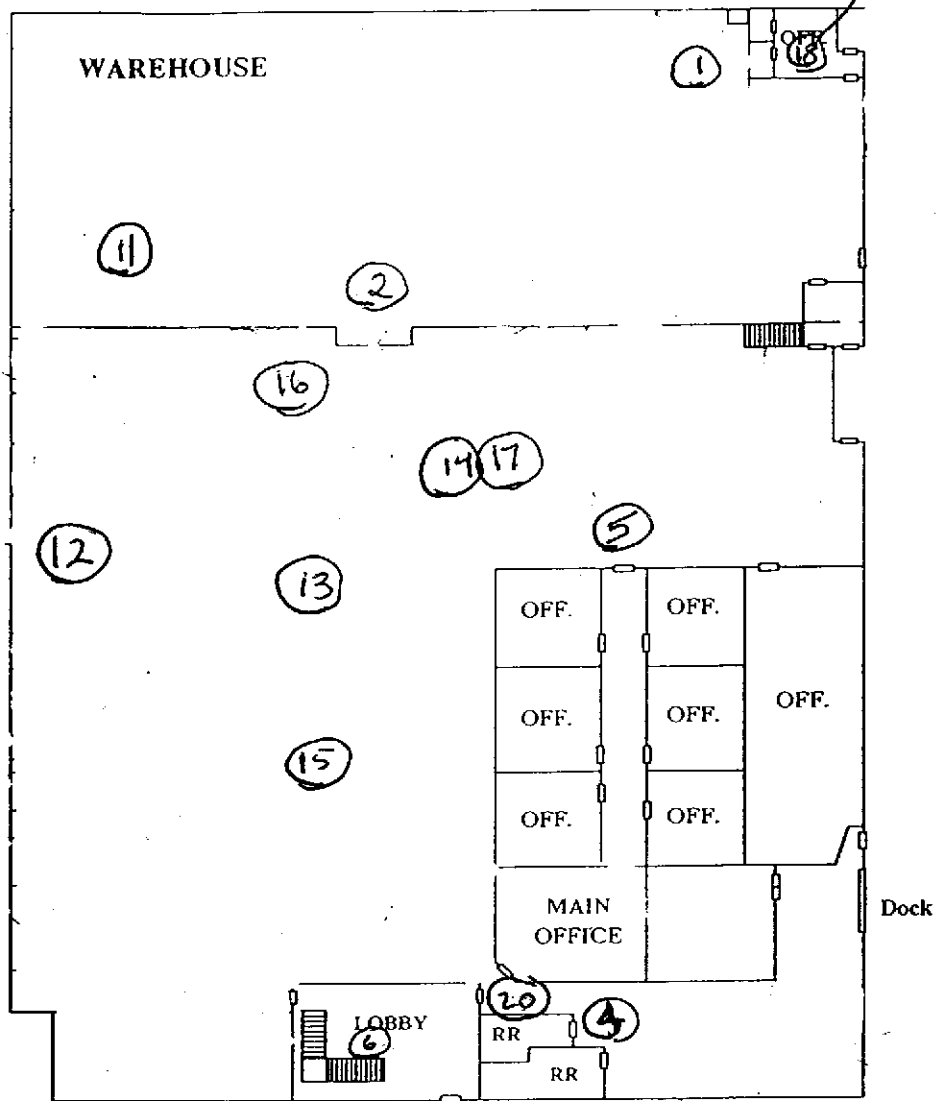
Date: November 17, 1994

Summary Wipe Sample Data for 6780 Sierra Court, Suite I

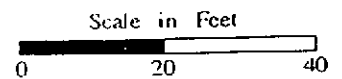
Location No.	Wipe Sample Location	March 28		July 28		July 31	
		ug/100cm2	ug/ft2	ug/100cm2	ug/ft2	ug/100cm2	ug/ft2
1	Floor - Rear Warehouse	1000	9000	18	182	9	81
2	Floor - Front Warehouse			57	513	5	45
3	Floor - 2nd Floor Office			7	63		
4	Floor - 1st Floor Restroom			27	243		
5	Floor - 1st Floor Office			17	153	3	27
6	Floor - 1st Floor Lobby (baseboard)			25	225	4	36
7	Light Fixture - 2nd Floor Office, Front			9	81		
8	Light Fixture - 2nd Floor Office, Rear						
9	Floor - 2nd Floor Mens Room					8	72
10	Floor - 2nd Floor Lunch Room	7	63				
11	Floor - Front Warehouse - Slicing					18	162
12	Floor - 1st Floor Waste Treatment	110	990			5	45
13	Floor - 1st Floor Clean Room					3	27
14	Floor - 1st Floor Polysynthesis	54	486				
15	Floor - 1st Floor Polishing	180	1620				
16	Floor - 1st Floor Crystal Growth (see No.14)	130	1170				
17	Floor - 1st Floor Crystal Growth (see No.14)	140	1260				
18	Floor - Rear Office Area					17	153
19	Cabinet Level - Lunchroom Towel Dispenser					<3	ND
20	Floor - Hall near Lobby (before final clean.)					27	243
	< : less than						
	ND : not detected (below detection limit)						
	March 28 data is derived from April 25th Plan.						
	Location No. Maps appended.						
	Laboratory data sheets for July 28 and July 31 appended.						

LOCATION NOS. : Wipe SAMPLE DATA

1ST FLOOR: PRODUCTION/WAREHOUSE

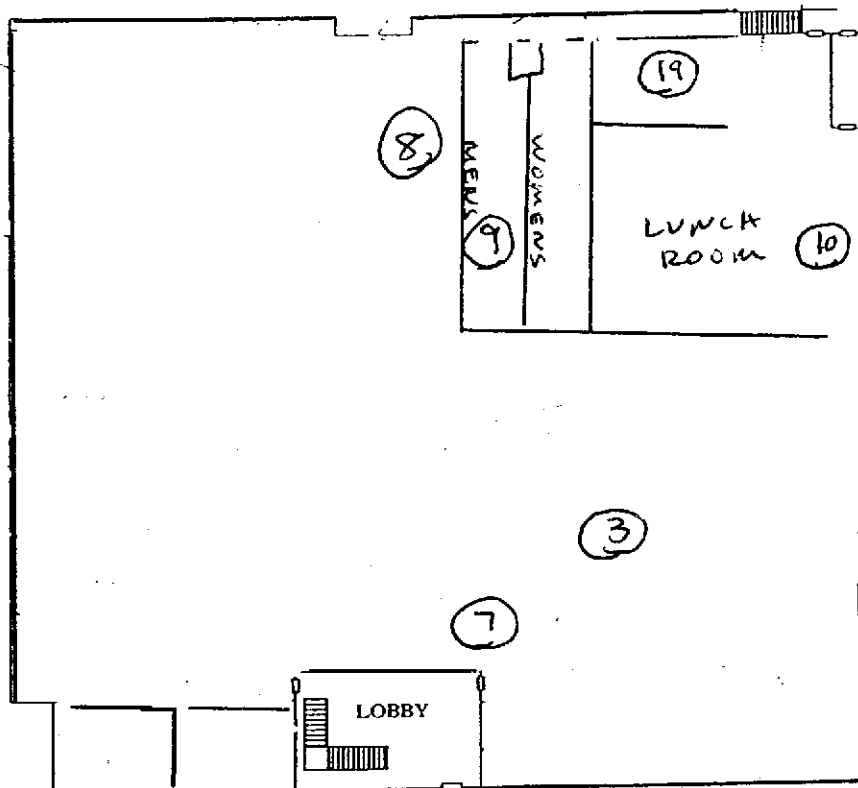


6780 SIERRA COURT
DUBLIN, CALIFORNIA 94568

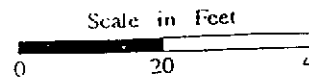


LOCATION NOS. : WIPE SAMPLE DATA

2nd Floor : OFFICE



6780 SIERRA COURT
DUBLIN, CALIFORNIA 94568



Analytical Results
for
American Xtal Technology

Clayton Project No. 97073.07

Sample Identification: See Below
 Lab Number: 9707307
 Sample Matrix/Media: WIPE
 Digestion Method: OSHA ID121M
 Method Reference: OSHA ID121M
 Date Received: 07/28/97
 Date Digested: 07/29/97
 Date Analyzed: 07/29/97

Lab Number	Sample Identification	Date Sampled	Arsenic (mg/wipe)	Method Detection Limit (mg/wipe)
-01	#1 LOBBY BASEBOARD	07/28/97	0.025	0.003
-02	#2 2ND FLR PLYWOOD	07/28/97	0.007	0.003
-03	#3 2ND FLR LIGHT FIXTURE	07/28/97	0.009	0.003
-04	#4 WAREHOUSE FLR OPP. RR	07/28/97	0.018	0.003
-05	#5 WAREHOUSE FLR ELEC.	07/28/97	0.057	0.003
-06	#6 1ST FLR OPP. MENS	07/28/97	0.027	0.003
-07	#7 1ST FLR OPP. OFF ENTRY	07/28/97	0.017	0.003
-08	METHOD BLANK	--	<0.003	0.003

ND: Not detected at or above limit of detection
 ---: Information not available or not applicable

Clayton

ENVIRONMENTAL
CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

VEORTAN

Date Results Requested: _____

Rush Charges Authorized? Yes No

Phone or Fax Results

Page 1 of 1

For Clayton Use Only
Clayton Lab Project No.
9707307

CLIENT INFORMATION

Name: ED HAGGERTY Client Job No. _____
 Company: AMERICAN XTAL TECH. Dept. _____
 Mailing Address: 4311 SOLAR WAY
 City, State, Zip: FREMONT CA
 Telephone No.: 883-5900 FAX No.: 683-5901

LABORATORY INFORMATION

Purchase Order No. _____
 Name _____
 Company _____
 Address _____ Dept. _____
 City, State, Zip _____

Special instructions and/or specific regulatory requirements:
 (method, limit of detection, etc.)
Whatman 42 (cup/100cm²)
Rapid analysis 24hr
 Explanation of Preservative: _____

Samples are: (check if applicable)
 Drinking Water
 Groundwater
 Wastewater

ANALYSIS REQUESTED
 (Enter an 'X' in the box below to indicate request. Enter a 'P' if Preservative added.)

AS											
----	--	--	--	--	--	--	--	--	--	--	--

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)
#1 Lobby baseboard	7/28	NA	Wipe	NA
#2 2nd Flr plywood			X	
#3 2nd Flr light fixture			X	
#4 warehouse flr opp. RR			X	
#5 warehouse flr elec.			X	
#6 1st Flr opp. mens			X	
#7 1st Flr opp. office			X	
			X	

FOR LAB USE ONLY											
											01A
											02A
											03A
											04A
											05A
											06A
											07A

CHAIN OF CUSTODY

Collected by: Ed Haggerty (print)
 Relinquished by: Ed Haggerty Date/Time: 7/28 5:30 PM
 Relinquished by: _____ Date/Time: _____
 Method of Shipment: Hand

Authorized by: S.D. Angleton Date: 7/28/97
 (Client Signature MUST Accompany Request)

Collector's Signature: _____
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Received at Lab by: J. ... Date/Time: 7/28/97 5:35
 Sample Condition Upon Receipt: Acceptable Other (explain)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

Detroit Regional Lab 22345 Rochelle Drive Novi, MI 48375 (800) 808-5487 (248) 344-1770 FAX (248) 344-2655	Atlanta Regional Lab 400 Chastain Center Blvd., N.W., Suite 490 Kennesaw, GA 30144 (800) 252-9919 (770) 496-7500 FAX (770) 423-4990	San Francisco Regional Lab 1252 Quarry Lane Pleasanton, CA 94566 (800) 294-1755 (510) 426-2657 FAX (510) 426-0105	Seattle Regional Lab 4636 E. Marginal Way S., Suite 215 Seattle, WA 98134 (800) 568-7755 (206) 753-7364 FAX (206) 763-4189
--	--	--	---

DISTRIBUTION:
 White = Clayton Laboratory
 Yellow = Clayton Accounting
 Pink = Client Copy

SENT BY: Xerox Telecopier 7020 : 7-29-97 : 5:08PM : CLAYTON PLEASE LAB- 510 6835601: # 4

Analytical Results
for
American Xtal Technology

Clayton Project No. 97080.03

Sample Identification: See Below
Lab Number: 9708003
Sample Matrix/Media: WIPE
Digestion Method: OSHA ID121M
Method Reference: OSHA ID121M

Date Received: 08/01/97
Date Digested: 08/04/97
Date Analyzed: 08/04/97

Lab Number	Sample Identification	Date Sampled	Arsenic (mg/wipe)	Method Detection Limit (mg/wipe)
-01	#1 WAREHOUSE FLR - SLICE	07/31/97	0.018	0.003
-02	#2 WAREHOUSE FLR - OPP RR	07/31/97	0.009	0.003
-03	#3 FLR - TREAT	07/31/97	0.005	0.003
-04	#4 FLR - CLEAN RM	07/31/97	0.003	0.003
-05	#5 LOBBY	07/31/97	0.004	0.003
-06	#6 2ND FLR MENS	07/31/97	0.008	0.003
-07	#7 LUNCH RM - DISPENSER	07/31/97	<0.003	0.003
-08	#8 TTL #1	07/31/97	<0.003	0.003
-09	#9 1ST FLR OPP OFF ENTRY	07/31/97	0.003	0.003
-10	#10 HALL NEAR LOBBY	07/31/97	0.027	0.003
-11	#11 REAR OFFICE	07/31/97	0.017	0.003
-12	#12 WAREHOUSE FLR, ELEC	07/31/97	0.005	0.003
-13	#13 TTLC #2	07/31/97	<0.003	0.003
-14	METHOD BLANK	--	<0.003	0.003

ND: Not detected at or above limit of detection
--: Information not available or not applicable

