ECOLOGY AND ENVIRONMENT, INC.

REGION VI

MEMORANDUM

REVIEWED BY LOAEGH DATE 2-14-85

TO: Dave Peters, Chief
Hazardous Waste Section
EPA, Region VI

FROM: G. A. Gallagher III,
FIT Environmental Scientist

THRU: K. H. Malone, Jr., RPM

DATE: July 31, 1984

SUBJ: Sampling Inspection at Precision National Corporation, Waco, TX (TX9971)
TDD #R6-8311-33

TXD056363708

The FIT was tasked to conduct sampling at Precision National Corporation in Waco, Texas as a result of high chromium and lead levels found in a sample taken during a reconnaissance inspection conducted on June 20, 1983. Upon arrival at the site, the FIT met with William Mathews, Regional and Plant Manager. Mr. Mathews expressed some concern in regard to the chromium and lead found in the recon inspection sample. He pointed out that lead was not in any way associated with the plating process or machining operations going on at the plant. He was also concerned that the chromium found may not be related to the plating process, waste treatment or temporary storage. The large crankshafts and other engine parts which have been chrome plated are subjected to a certain amount of grinding, filing and polishing. This results in filings and dust which have been disposed of in back of the plant in the past. It was his opinion that the total chrome analysis of the recon sample reflected this filing material, and that untreated $Cr^{+}6$ or $Cr^{+}3$ from the treatment system was not a part of the elevated amount detected.

1/11/84

Because of the potential for finding very high levels of chromium in the samples, it was believed that a special analysis for chromium valence would provide the FIT with better information to indicate the problem source, as well as a more specific identification of the contamination hazard.

A total of thirteen surface soil samples were taken at the site. Descriptions of their locations are provided below (also refer to the attached sketch of sample locations) as well as a summary of chromium present in each, and other elevated inorganics. Complete tables of sample analysis data are attached.

Station #01

30' north of Precision Road, 120' west of south driveway entrance. 0 - 3" depth

*Cr (total)	8ppm
Cr (total)	9.6ppm
*Cr+3	8ppm
*Cr+6	<1ppm
Silver	2.7ppm
Arsenic	32ppm
Mercur	0.12ppm
Lead	21ppm

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Station #02

30' north of Precision Road, 100' west of railroad tracks. 0 - 3" depth

*Cr (total)	6ppm
Cr (total)	6.5ppm
*Cr +3	6ppm
*Cr +6	<1ppm
Silver	2.8ppm
Arsenic	12ppm
Lead	9.2ppm

Station #03

70 yards north of Precision Road, 100 yards south of factory. 0 - 3" depth

*Cr (total)	7ppm
Cr (total)	7.5ppm
*Cr+3	7ppm
*Cr+6	<1ppm
Silver	2.8ppm
Arsenic	8.9ppm
Mercury	0.1ppm
Lead	9.3ppm

Station #04

40' west of railroad tracks, middle of west property line. 0 - 3" depth

*Cr (total)	9ppm
Cr (total)	6.7ppm
*Cr+3	9ppm
*Cr+6	<5ppm
Silver	3.1ppm
Arsenic	13ppm
Mercury	0.16ppm
Lead	15ppm

Station #05

25' southeast of entrance road, southeast of intersection of Valley Mills Loop 369 and Franklin Road. 0 - 3" depth

*Cr (total)	10ppm
Cr (total)	12ppm
*Cr+3	10ppm
*Cr+6	<10ppm
Silver	1.4ppm
Arsenic	24ppm
Mercury	0.12ppm
Lead	91ppm

Station #06

8' south of service road to Valley Mills Loop 369 directly in front of factory. 0 - 3" depth

*Cr (total)	7.5ppm
Cr (total)	8.9ppm
*Cr +3	7.5ppm
*Cr +6	<1ppm
Silver	0.8ppm
Arsenic	17ppm
Lead	14ppm

Station #07

75 yards southeast of southeast corner of factory building. Composite sample of 5 aliquots, 0 - 3" depth in area of 15' diameter

*Cr (total)	16ppm
Cr (total)	16ppm
*Cr+3	16ppm
*Cr+6	<5ppm
Silver	2.6ppm
Arsenic	19ppm
Mercury	0.97ppm
Lead	22ppm

Station #08

25' sourth of Valley Mills Loop 369 service road, across from entrance ramp to highway. 0 - 3" depth

*Cr (total)	1130ppm
Cr (total)	1050ppm
*Cr+3	1100ppm
*Cr+6	35ppm
Silver	3.0ppm
Arsenic	39ppm
Mercury	0.8ppm
Lead	105ppm
Thalium	0.5ppm

Station #09

30' south of access road, 25 yards west of railroad tracks, in northeast corner of property. Appeared to be off-site (in area where site property, railroad right-of-way and highway right-of-way intersect). Sample was taken at crest of drop off into drainage ditch paralleling railroad tracks, flowing north. 0 - 3" depth

*Cr (total)	618ppm
Cr (total)	660ppm
*Cr+3	618ppm
*Cr+6	<5ppm
Silver	15ppm
Arsenic	31ppm
Mercury	0.26ppm
Lead	37ppm
Thalium	0.5ppm

Station #10

Northeast corner of property, along drainage ditch, at edge of drop-off. Soil taken at three "low spot" locations where surface runoff enters ditch, and composited as one sample. All three were located in a thirty foot line and were 0 - 3" depth each.

*Cr (total)	33ppm
Cr (total)	30ppm
*Cr+3	33ppm
*Cr+6	<10ppm
Silver	16ppm
Arsenic	30ppm
Mercury	1.1ppm
Lead	23ppm
Thalium	0.46ppm

Station #11

60' from access road, where large drainage ditch discharges to drainage parallelling access road and flowing east. 0 - 3" depth

*Cr (total)	1030ppm
Cr (total)	1920ppm
*Cr+3	1030ppm
*Cr+6	36ppm
Silver	14ppm
Arsenic	30ppm
Mercury	1.4ppm
Lead	33ppm
Thalium	0.4ppm

Station #12

At head of small drainage ditch draining the fenced area behind the factory. Composite sample of five aliquots, 0 - 3" depth, in an area of 15' diameter.

*Cr (total)	3260ppm
Cr (total)	3030ppm
*Cr+3	3080ppm
*Cr+6	180ppm
Silver	2.1ppm
Arsenic	21ppm
Mercury	2.0ppm
Lead	34ppm

Station #13

Behind the factory on the east side of the parking lot, and at the head of the large drainage ditch. Composite sample of five aliquots, 0 - 3" depth, in an area of 15' diameter. Included in this area is some evidence of dumped filings from factory.

*Cr (total)	2460ppm
Cr (total)	1600ppm
*Cr+3	2450ppm
*Cr+6	10ppm
Silver	2.6ppm
Arsenic	22ppm
Mercury	1.1ppm
Lead	2020ppm
Barium	630ppm
Cobalt	12ppm
Copper	460ppm
Iron	56,430ppm
Nickel	240ppm

*Indicates data provided by Versar, Inc. lab. All other data is from analysis of the same samples by JTC Environmental.

It should be noted that in some of the samples there is a marked difference in the two values given for total chromium. The samples were first analyzed by JTC Environmental, Rockville, Maryland. The usual inorganic tasks were performed for the soil samples (including total chromium). The remaining sample was repackaged and forwarded on to Versar, Inc., Springfield, Virginia. Versar carried out special analysis for total chromium, Cr+3 and Cr+6 only. Differences in the amounts of chromium reported are probably due to variances in the soil of each sample and different analytical methods. Because analysis is carried out for total chromium and hexavalent chromium only, the difference has been reported as trivalent. The Cr+3 values given may also actually include metallic chromium present.

Samples #01, #02, #03, #04, #05, and #06 appear to provide good background information on the natural presence of inorganics, as well as the influence of outside sources on the soils at the site. Samples #12 and #13 were taken at the potential problem sources. Station #12 is located adjacent to the area where plating solution treatment and treated waste temporary storage are located. Station #13 is in an area where filings and other debris have been dumped. Samples #08 and #11 trace the drainage as it proceeds eastward along the north property line, and Samples #09 and #10 were taken where drainage leaves the property.

Based on the above sample data, it appears that a problem exists at this site. Sample #12 indicates that some chromium from the treatment process has been escaping containment. Sample #13 indicates that the dumped materials in this area contain elevated levels of several inorganic pollutants (Cr+3 - 2450ppm, Cr+6 - 10ppm, Lead - 2020ppm, as well as others). Sample #09 did not indicate that hexavalent chromium is leaving the site, however, 618ppm Cr+3 was detected.

Based on the above sample data, it is recommended that Precision National be advised to employ better "housekeeping" practices to ensure that the treatment system waste is no longer allowed to leave the treatment area, and that the dumping of debris potentially containing contaminants such as those found in Sample #13, be discontinued.

/rc

TABLE I. INORGANIC ANALYSIS SUMMARY

CASE NUMBER: 2343

SITE NAME/CODE: Precision National/TX9971

CONCENTRATIONS (ppm)

	PARAMETER	EPA Sample Numbers										Ambient Background 1.	
		MF0304	MF0305	MF0306	MF0307	MF0308	MF0309	MF3010	MF0311	MF0312	MF0313	Western U.S. 2.	Eastern U.S. 2.
Task 1	Matrix Type	Blank	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Aluminum		5390s	4840	3900	4580	8000	6300	6270	11660	9210	54,000	33,000
	Chromium		9.6s	6.5	7.5	6.7	12	8.9	16	1050	660	38	36
	Barium		72	55	54	81	91	61	61	102	88	560	300
	Beryllium		0.6	0.3	0.4	0.5	0.5	0.6	0.5	0.6	0.7	0.6	0.6
	Cobalt		7.8	9.2	8.1	4.6	8.1	4.6	7.8	7.4	10	8	7
	Copper		8.3	7.7	6.3	7.3	7.7	7.1	7.6	30	15	21	14
	Iron		4120s	5720	3850	5010	6950	6210	6270	11540	11400	20,000	15,000
	Nickel		19	18	15	13	15	9.0	18	20	18	16	13
	Manganese		760	610	580	520	760	390	720	680	700	390	290
	Zinc		32	22	15	55	39	18	26	49	56	51	36
	Boron											22	32
	Vanadium		30	21	26	26	39	18	22	37	35	66	46
	Silver		2.7	2.8	2.8	3.1	1.4	0.8	2.6	3.0	15	<.50	-
Task 2	Arsenic		32	12	8.9	13	24	17	19	39	31	6.1	5.4
	Antimony		2.7	1.8	1.4	1.9	2.8	1.8	2.5	4.2	4.5	<150	-
	Selenium			0.6	0.8				0.2	0.2	0.3	0.25	0.39
	Thallium									0.5	0.5	-	-
	Mercury		0.12		0.10	0.16	0.12		0.97	0.60	0.26	0.055	0.096
	Tin		1.4s	0.97	1.5	1.0	1.0	3.1	1.4	4.2	2.7	<10	<10
	Cadmium		0.28	0.14	0.20	0.28	0.20	0.16	0.14	0.80	0.21	<1	<1
	Lead		21s	9.2	9.3	15	91	14	22	105	37	18	14
Task 3	Ammonia											-	-
	Cyanide											-	-
	Sulfide											-	-
	Station No.	Blank	01	02	03	04	05	06	07	08	09		
	Sample Station Location		30' N. OF PRECISION RD. 120' W. OF S. DRIVEWAY ENTRANCE 0-3"	30' N. OF PRECISION RD. 100' W. OF RR TRACKS 0-3"	70 YDS. N. OF PRECISION RD. 100 YDS S. OF FACTORY 0-3"	40' W. OF RR TRACKS MIDDLE OF W. PROPERTY LINE 0-3"	25 FT. S.E. OF ENTRANCE RD. S.E. INTERSECTION	8' S. OF VALLEY MILLS LOOP 369 IN FRONT OF PLANT	75 YDS S.E OF S.E. CORNER OF FACTORY BUILDING	25' S. OF VALLEY MILLS SERVICE RD. ACCESS FROM ENTRANCE RAMP	30' S. OF ACCESS RD. 25 YDS. W. OF RR TRACKS IN N.E. CORNER OF PROPERTY		

1. Ambient background concentrations apply only to soil matrix samples. Values obtained from "Geochemistry of Some Rocks, Soils, Plant and Vegetables in the Contermious United States" Geological Survey Professional Paper

2. Reference for East/West Division is the 97° W longitudinal line which bisects Region VI.

C - Concentration corrected for lab blank concentration

TABLE I. INORGANIC ANALYSIS SUMMARY

CASE NUMBER: 2343

SITE NAME/CODE: Precision National/TX9971

CONCENTRATIONS (ppm)

	PARAMETER	EPA Sample Numbers										Ambient Background 1.	
		MF0314	MF0315	MF0316	MF0317							Western U.S. 2.	Eastern U.S. 2.
Task 1	Matrix Type	Soil	Soil	Soil	Soil							Soil	Soil
	Aluminum	10080	9090	6910	3040							54,000	33,000
	Chromium	30	1920	3030	1600							38	36
	Barium	75	76	90	630							560	300
	Beryllium	0.6	0.5	0.5								0.6	0.6
	Cobalt	8.0	7.3	8.2	12							8	7
	Copper	11	23	29	460							21	14
	Iron	9790	15180	7170	56340							20,000	15,000
	Nickel	18	18	21	240							16	13
	Manganese	610	630	820	825							390	290
	Zinc	49	42	50	72							51	36
	Boron											22	32
	Vanadium	35	40	28	42							66	46
	Silver	16	14	2.1	2.6							<.50	-
Task 2	Arsenic	30	30	21	22							6.1	5.4
	Antimony	4.2	3.2	2.6	3.6							<150	-
	Selenium	0.42	0.5	0.3								0.25	0.39
	Thallium	0.46	0.4									-	-
	Mercury	1.1	1.4	2.0	1.1							0.055	0.096
	Tin	2.1	2.3	1.4	2.9							<10	<10
	Cadmium	0.22	0.20	0.29	0.54							<1	<1
	Lead	23	33	34	2020							18	14
Task3	Ammonia											-	-
	Cyanide											-	-
	Sulfide											-	-
	Station No.	10	11	12	13								
	Sample Station Location	N.E. CORNER OF PROPERTY ALONG DRAINAGE DITCH; FROM EDGE	60' FROM ACCESS RD. WHERE LARGE DRAINAGE DITCH DISCHARGES	BEGINNING OF SMALL DRAINAGE DITCH FROM FENCED AREA BEHIND FACTORY	BEHIND FACTORY E. SIDE OF PARKING LOT HEAD OF DRAINAGE WAY								

1. Ambient background concentrations apply only to soil matrix samples. Values obtained from "Geochemistry of Some Rocks, Soils, Plant and Vegetables in the Contermious United States" Geological Survey Professional Paper

2. Reference for East/West Division is the 97° W longitudinal line which bisects Region VI.

C - Concentration corrected for lab blank concentration

Table III. INORGANIC

CASE NUMBER: 2343

SITE NAME/CODE: Precision Nat'l Corp.

CONCENTRATIONS (ppm)

PARAMETERS			EPA SAMPLE NUMBERS									
Compound	Fraction	Class	MF 0304	MF 0305	MF 0306	MF 0307	MF 0308	MF 0309	MF 0310	MF 0311	MF 0312	MF 0313
Trivalent Chromium (Cr+3)			<1	8	6	7	9	10	7.5	16	1100	618
Chromium (Cr+6)			<1	<1	<1	<1	<5	<10	<1	<5	35	<5
Hexavalent												
TOTAL CHROMIUM			<0.5	8	6	7	9	10	7.5	16	1130	
Matrix Type			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Station Number				1	2	3	4	5	6	7	8	9
Sample Station Location												

Table III, INORGANIC

CASE NUMBER: 2343

SITE NAME/CODE: Precision Nat'l Corp.

CONCENTRATIONS (ppm)

EPA SAMPLE NUMBERS

PARAMETERS												
Compound	Fraction	Class	MF 0314	MF 0315	MF 0316	MF 0317						
Trivalent Chromium (Cr+3)			33	1030	3080	2450						
Chromium (Cr+6)			<10	36	180	10						
Hexavalent												
TOTAL CHROMIUM			33	1030	3260	2460						
Matrix Type			Soil	Soil	Soil	Soil						
Sample Station Number			10	11	12	13						
Sample Station Location												

INORGANIC QC CHECKLIST

Site: Precision National

Contractor: JTC Contract No. 68-01-6616

Case No. 2343 Matrix: Soil/Sediment

Sample No.

MF0304 F. Blank	MF0308	MF0312	MF0316	
MF0305	MF0309	MF0313	MF0317	
MF0306	MF0310	MF0314		
MF0307	MF0311	MF0315		

COMMENTS (To be completed by EPA Personnel)

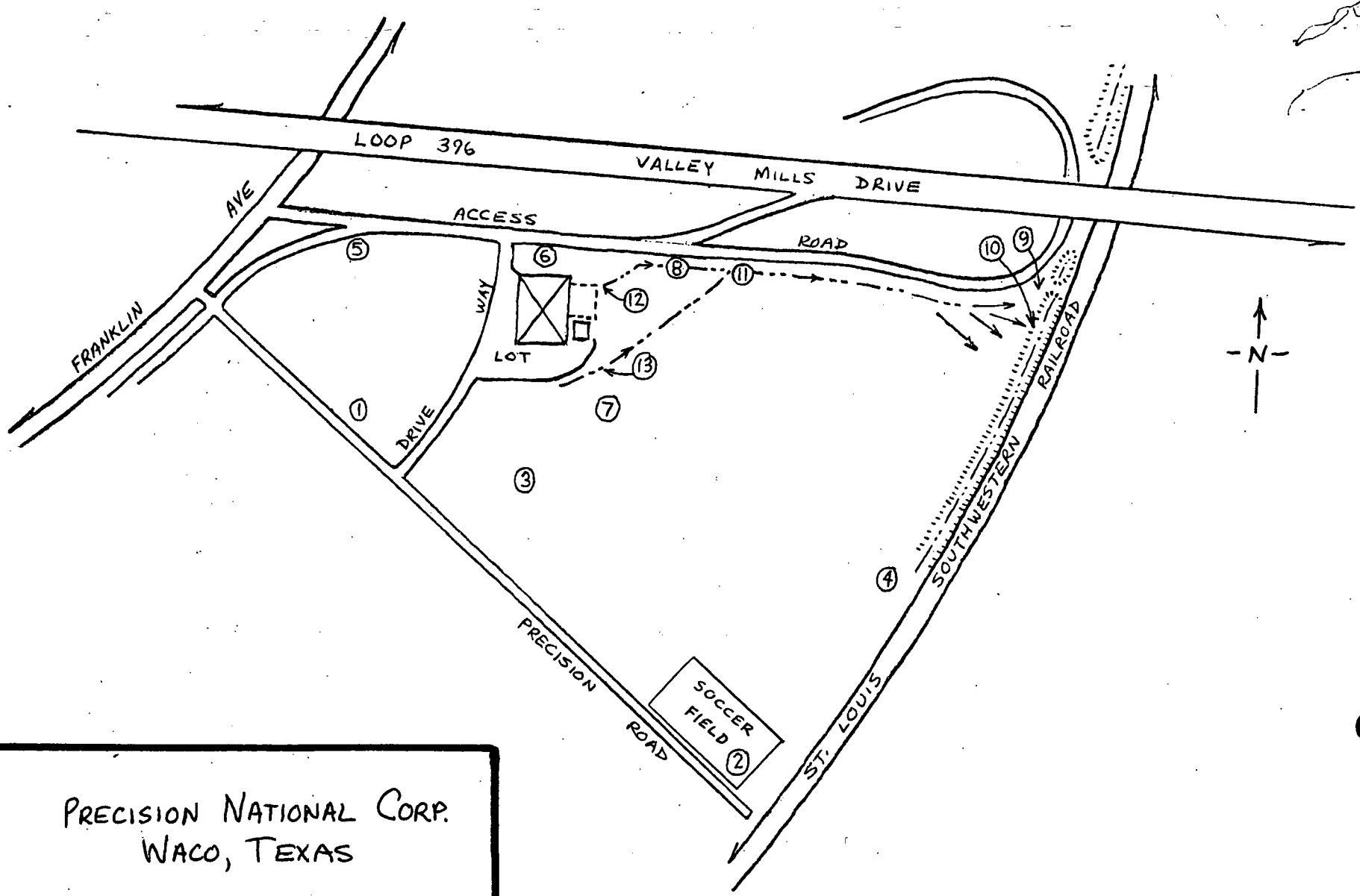
Data Completeness	✓	Acceptable		Not Acceptable
Instrument Calibration Tune	✓	Acceptable		Not Acceptable
Interference Check Sample	NA	Acceptable		Not Acceptable
Blank Analysis	✓	Acceptable		Not Acceptable
Matrix Spikes	*	Acceptable		Not Acceptable
Duplicates	*	Acceptable		Not Acceptable
Field Blanks	✓	Acceptable		Not Acceptable

ADDITIONAL COMMENTS

* 1) Low Spike Recoveries: Cr 76%, Pb 70%, Se 40%.
High Spike Recoveries: Al 125%, Fe 144%, Sn 464%.

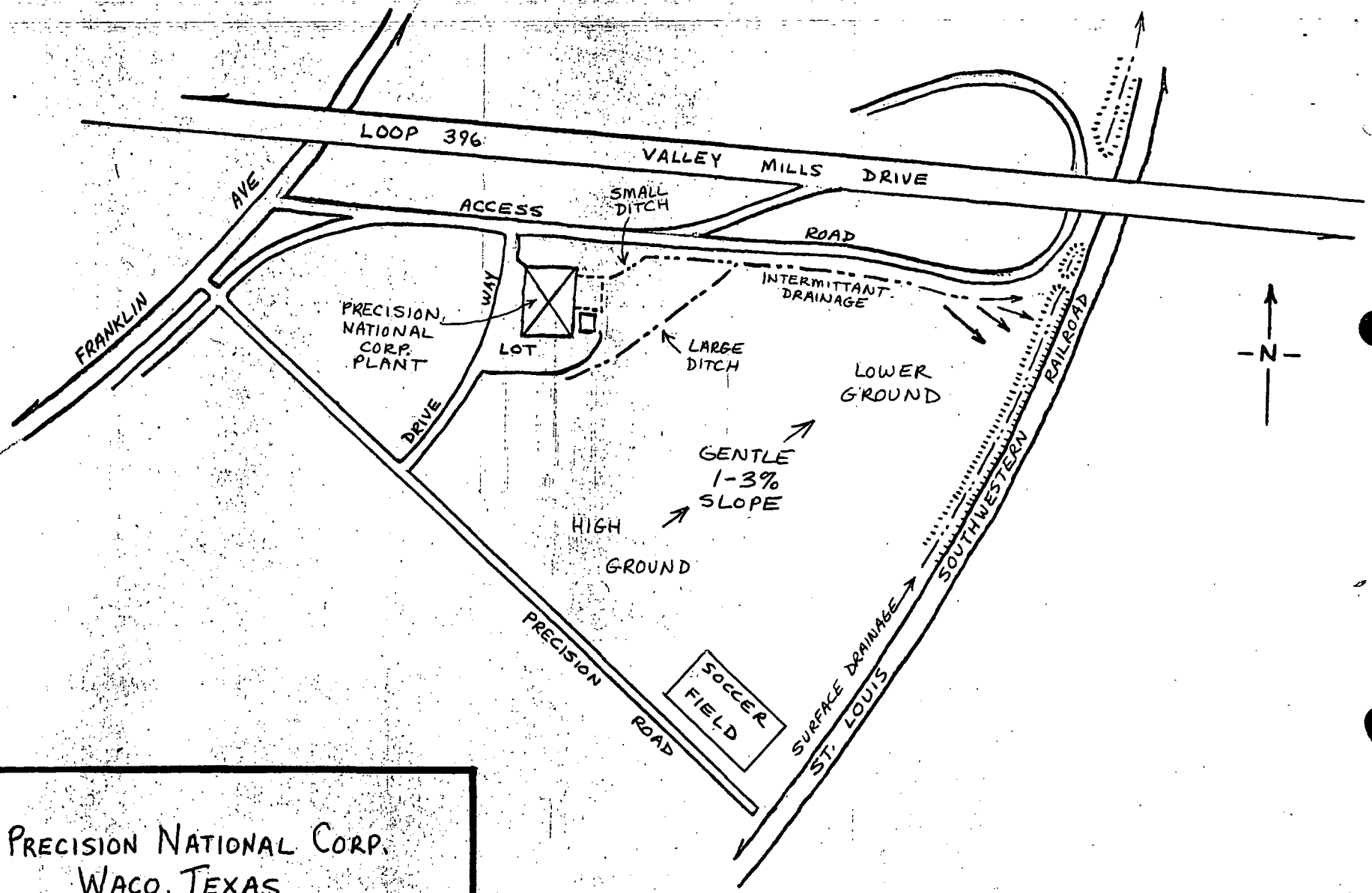
* 2) Standard Addition used to compute the Chromium, Tin, and Lead values for sample MF0305, but apparently not used to compute the values for these elements for sample MF0305 Duplicate.

Reviewed Jerry Caravioti 2/21/84



PRECISION NATIONAL CORP.
WACO, TEXAS

January 11, 1984
Sample Locations



PRECISION NATIONAL CORP.
WACO, TEXAS

property line is highlighted

6608 HORNWOOD DRIVE HOUSTON, TEXAS 77074

DATE: 7-10-84

SUBJECT: CLP Data Review

FROM: William Langley, Chief
Houston Branch (6ES-H) M.L. Ritter for

TO: Keith Bradley
Hazardous Waste Section (6ES-SH)

A review of the laboratory raw data for case # 2343 has been completed by members of the Laboratory Section. Attached please find copies of the relevant QC notices for the following samples.

INORGANIC: MF0304 through MF0317

PRECISION NATIONAL CORP
TXD056363708

ORGANIC:

Please call me if you have any questions regarding the data review.

Attachments

Precision Nat'l

SUPERFUND FILE

JAN 13 1993

REORGANIZED

EPA Form 1320-6 (Rev. 3-76)

INORGANIC QC CHECKLIST

Site: Precision National

Contractor: Versar Contract No. 68-01-6661

Case No. 2343 Matrix

Sample No. MF0304 through MF0317

COMMENTS (To be completed by EPA Personnel)

Data Completeness	✓ Acceptable	Not Acceptable
Instrument Calibration Tune	✓ Acceptable	Not Acceptable
Interference Check Sample	✓ Acceptable	Not Acceptable
Blank Analysis	✓ Acceptable	Not Acceptable
★ Matrix Spikes	See Comments Acceptable	See Comments Not Acceptable
Duplicates	✓ Acceptable	Not Acceptable
Field Blanks? No Traffic Forms.	Acceptable	Not Acceptable

★ ADDITIONAL COMMENTS

1. The spike recovery value for Cr^{+6}, sample MF 0306, is 50%. A value of <1 mg/kg Cr^{+6} is recorded for the sample, footnoted with "S" - sample analyzed by the standard addition method. The contract requests that if a spike recovery is not within the required limits, the net response for the sample spike shall be used as a single point method of addition calibration for the spiked sample (Exhibit E, page 6). However, I feel a single point method of addition cannot verify a below detection limit value, when the initial readout is below the

Reviewed

INORGANIC QC CHECKLIST

Site: Precision National

Contractor: Versar Contract No. 68-01-6661

Case No. 2343 Matrix

Sample No. MF0304 through MF0317

COMMENTS (To be completed by EPA Personnel)

Data Completeness	____ Acceptable	____ Not Acceptable
Instrument Calibration Tune	____ Acceptable	____ Not Acceptable
Interference Check Sample	____ Acceptable	____ Not Acceptable
Blank Analysis	____ Acceptable	____ Not Acceptable
Matrix Spikes	____ Acceptable	____ Not Acceptable
Duplicates	____ Acceptable	____ Not Acceptable
Field Blanks	____ Acceptable	____ Not Acceptable

ADDITIONAL COMMENTS

detection limit and the recovery of the addition (the spike) is 50%. An initial Cr^{+6} spike attemp, on sample MF 0305, resulted in a 0% spike recovery (See the first Cr^{+6} Flame AA Analysis Log Sheet).

2. All Task 1 Chromium values, with the exception of the value for sample MF0310, are rounded off to whole numbers.

Reviewed Jerry Caravotta
June 8, 1984

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
6[illegible] HORNWOOD DRIVE HOUSTON, TEXAS 77[illegible]

DATE: February 23, 1984

SUBJECT: CLP Data Review

FROM: William Langley, Chief
Houston Branch (6ES-H) William D. Langley

TO: Phil Crocker
Hazardous Waste Section (6ES-SH) PPC ~~William D. Langley~~

A review of the laboratory raw data for case # 2343 has been completed by members of the Laboratory Section. Attached please find copies of the relevant QC notices for the following samples:

INORGANIC:	MF 0304	MF 0308	MF 0312	MF 0316
	MF 0305	MF 0309	MF 0313	MF 0317
	MF 0306	MF 0310	MF 0314	
	MF 0307	MF 0311	MF 0315	
			~~PRECISION NATIONAL CORP~~	
ORGANIC:			~~TXD 056363708~~	

Please call me if you have any questions regarding the data review.

Attachments

SUPERFUND FILE

JAN 13 1993

REORGANIZED

EPA Form 1320-6 (Rev.3-76)

INORGANIC QC CHECKLIST

Site: Precision National

Contractor: JTC

Contract No. 68-01-6616

Case No. 2343

Matrix: Soil/Sediment

Sample No.				
MF0304 F. Blank	MF0308	MF0312	MF0316	
MF0305	MF0309	MF0313	MF0317	
MF0306	MF0310	MF0314		
MF0307	MF0311	MF0315		

COMMENTS (To be completed by EPA Personnel)

Data Completeness	✓	Acceptable	____	Not Acceptable
Instrument Calibration Tune	✓	Acceptable	____	Not Acceptable
Interference Check Sample	NA	Acceptable	____	Not Acceptable
Blank Analysis	✓	Acceptable	____	Not Acceptable
Matrix Spikes	*	Acceptable	____	Not Acceptable
Duplicates	*	Acceptable	____	Not Acceptable
Field Blanks	✓	Acceptable	____	Not Acceptable

ADDITIONAL COMMENTS

* 1) Low Spike Recoveries: Cr 76%, Pb 70%, Se 40%.
High Spike Recoveries: Al 125%, Fe 144%, Sn 464%.

* 2) Standard Addition used to compute the Chromium, Tin, and Lead values for sample MF0305, but apparently not used to compute the values for these elements for sample MF0305 Duplicate.

Reviewed Jerry Caravietta 2/21/84

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 2/8/84

MODE: flame

OPERATOR: E. Dantsker

INJ. VOL.:

METAL: Al

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475#3			.030	644
	Meth. Blk	M. Blk.			.000	<100
	MF-0304	70-0746			.000	<100
	MF-0305	70-0747	1:300		.022	142,300
	MF-0305	D. 70-0747	1:300		.020	129,600
	MF-0305	Sp. 70-0747	1:300	1000	.065	1,380
	MF-0306	70-0748	1:100		.047	100,300
	MF-0307	70-0749	1:100		.042	89,750
	MF-0308	70-0750	1:100		.048	102,400
	MF-0309	70-0751	1:100		.080	170,100
	MF-0310	70-0752	1:100		.061	130,000
	MF-0311	70-0753	1:100		.059	125,700
	EPA QC	475#3			.031	665
	MF-0312	70-0754	1:100		.116	246,300
	MF-0313	70-0755	1:100		.097	206,100
	MF-0314	70-0756	1:100		.102	216,700
	MF-0315	70-0757	1:100		.096	204,000
	MF-0316	70-0758	1:100		.065	138,400
	MF-0317	70-0759	1:100		.029	62,200
	EPA QC	475#3			.033	707

TXD056363708
SUPERFUND FILE
JAN 21 1993
REORGANIZED
Precision Data Corp

*Results corrected for dilutions and blank.

PROJECT MANAGER

DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 2/7/84

MODE: flame

OPERATOR: E. Dantsker

INJ. VOL.:

METAL: Ba

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	378#10			.024	296
	Meth. Blk	M. Blk.			.001	<100
	MF-0304	70-0746			.005	<100
	MF-0305	70-0747	1:2		.062	1530
	MF-0305	D. 70-0747	~~1:2~~		.114	~~2800~~ 1400
	MF-0305	Sp. 70-0747	1:2	1000	.135	1660
	MF-0306	70-0748			.093	1140
	MF-0307	70-0749			.099	1220
	MF-0308	70-0750			.147	1810
	MF-0309	70-0751			.157	1930
	MF-0310	70-0752			~~.099~~ .102	1260
	MF-0311	70-0753		?	.099	1220
	EPA QC			~~1000~~	.027	333
	MF-0312	70-0754			.175	2160
	MF-0313	70-0755			.161	1980
	MF-0314	70-0756			.132	1620
	MF-0315	70-0757			.138	1700
	MF-0316	70-0758			.147	1810
	MF-0317	70-0759	1:25		.042	12940
	EPA QC	378#10			.024	296

*Results corrected for dilutions and blank.

PROJECT MANAGER

DATE 2/8/84

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 2/6/84

MODE: flame

OPERATOR: E. Dantsker

INJ. VOL.: —

METAL: Ag

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC				.036	60
	Meth. Blk	M. Blk.			-.002	<10
	MF-0304	70-0746			.002	<10
	MF-0305	70-0747			.034	57
	MF-0305	D. 70-0747			.030	50
	MF-0305	Sp. 70-0747		100	.084	141
	MF-0306	70-0748			.034	57
	MF-0307	70-0749			.037	62
	MF-0308	70-0750			.041	69
	MF-0309	70-0751			.019	31
	MF-0310	70-0752			.010	16
	MF-0311	70-0753			.031	52
	EPA QC				.038	64
	MF-0312	70-0754			.195	329
	MF-0313	70-0755			.207	350
	MF-0314	70-0756			.186	314
	MF-0315	70-0757			.026	43
	MF-0316	70-0758			.028	47
	MF-0317	70-0759			.032	53
	EPA QC				.033	55

*Results corrected for dilutions and blank.

PROJECT MANAGER

2/8/84
DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 2/1/84

MODE: CV

OPERATOR: E. Dantsker

INJ. VOL.: —

METAL: Hg

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC. µg
EPA-70	EPA QC				.086	.213
	Meth. Blk	M. Blk.			.006	<.02
	MF-0304	70-0746			.005	<.02
	MF-0305	70-0747			.010	.025
	MF-0305	D. 70-0747			.007	<.02
	MF-0305	Sp. 70-0747		~~4.0µg~~ 0.4µg	.165	~~4.1µg~~ .41µg
	MF-0306	70-0748			.008	<.02
	MF-0307	70-0749			.009	.022
	MF-0308	70-0750			.014	.034
	MF-0309	70-0751			.010	.025
	MF-0310	70-0752			.005	<.02
	MF-0311	70-0753			.085	.211
	EPA QC				.088	.218
	MF-0312	70-0754			.055	.136
	MF-0313	70-0755			.021	.052
	MF-0314	70-0756			.009	.22
	MF-0315	70-0757			.120	.297
	MF-0316	70-0758			.160	.396
	MF-0317	70-0759			.094	.232
	EPA QC				.088	.217

*Results corrected for dilutions and blank.

PROJECT MANAGER

2/5/84
DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1/26/84

MODE: GFAA

OPERATOR: E. Dantsker

INJ. VOL.: 20µl

METAL: As

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC				.022	22
	Meth. Blk	M. Blk.			.005	<10
	MF-0304	70-0746			.004	↓
	MF-0305	70-0747	1:25		.027	680
	MF-0305	D. 70-0747	1:25		.017	430
	MF-0305	Sp. 70-0747	1:25	50	.072	(72)
	MF-0306	70-0748	1:25		.010	250
	MF-0307	70-0749	1:25 ~~1:12.5 1:50~~		.008 .023	200 290
	MF-0308	70-0750	1:12.5		.024	300
	MF-0309	70-0751	1:10		.051	510
	MF-0310	70-0752	1:10		.035	350
	MF-0311	70-0753	1:10		.039	390
	EPA QC				.024	24
	MF-0312	70-0754	1:10		.081	820
	MF-0313	70-0755	1:20		.035	700
	MF-0314	70-0756	1:10		.064	640
	MF-0315	70-0757	1:10		.068	680
	MF-0316	70-0758	1:10		.042	420
	MF-0317	70-0759	1:10		.046	460
	EPA QC				.025	25

*Results corrected for dilutions and blank.

PROJECT MANAGER

1/27/84
DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1/27/84 MODE: GFAA

OPERATOR: E. Dantsker INJ. VOL.: 20µl

METAL: Se AUTO. CAL.: —

CASE #: 2343

	PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
92%	EPA-70	EPA QC				.027	13
		Meth. Blk	M. Blk.			.001	<2
		MF-0304	70-0746			.001	
		MF-0305	70-0747			.001	
		MF-0305	D. 70-0747			.003	
40%		MF-0305	Sp. 70-0747		25	.021	9.9
		MF-0306	70-0748	1:2		.014	13
		MF-0307	70-0749	1:4		.010	18
		MF-0308	70-0750			.000	<2
		MF-0309	70-0751			.002	
		MF-0310	70-0752			.003	
		MF-0311	70-0753			.009	4
92%		EPA QC				.027	13
		MF-0312	70-0754			.012	5
		MF-0313	70-0755	~~1:2~~		.015	7
		MF-0314	70-0756			.019	9
		MF-0315	70-0757			.025	12
		MF-0316	70-0758			.015	7
		MF-0317	70-0759			.004	<2
86%		EPA QC				.026	12

*Results corrected for dilutions and blank.

PROJECT MANAGER DATE 1/27/84

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.20.87

MODE: GFAA

OPERATOR: E. Dantsker

INJ. VOL.: 20µl

METAL: Cd

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	581#1	1/100		.020	2.7
	Meth. Blk	M. Blk.	1/1		.004	<1.0
	MF-0304	70-0746	"		.001	↓
	MF-0305	70-0747	1/5		.009	5.9
	MF-0305	D. 70-0747	"		.010	6.6
	MF-0305	Sp. 70-0747	(")	2 µg	.024	(3.2)
	MF-0306	70-0748	1/1		.022	3.0
	MF-0307	70-0749	"		.033	4.4
	MF-0308	70-0750	1/2		.023	6.2
	MF-0309	70-0751	1/1		.032	4.3
	MF-0310	70-0752	"		.025	3.4
	MF-0311	70-0753	"		.021	2.8
	EPA QC	581#1	1/100		.024	3.2
	MF-0312	70-0754	1/5		.025	17
	MF-0313	70-0755	1/1		.034	4.6
	MF-0314	70-0756	"		.035	4.7
	MF-0315	70-0757	"		.034	4.6
	MF-0316	70-0758	1/2		.022	5.9
	MF-0317	70-0759	1/5		.017	11
	EPA QC	581#1	1/100		.024	3.2

*Results corrected for dilutions and blank.

PROJECT MANAGER

1/20
DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.19.84 MODE: GFAA

OPERATOR: E. Dantsker INJ. VOL.: 20µl

METAL: TL AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	581 # 1	1/100		.023	25
	Meth. Blk	M. Blk.	1/1		.001	N.D.
	MF-0304	70-0746	"		.000	N.D.
	MF-0305	70-0747	"		.005	N.D.
	MF-0305	D. 70-0747	"		.003	N.D.
	MF-0305	Sp. 70-0747	"	25µg/L	.018	20
	MF-0306	70-0748	"		.003	N.D.
	MF-0307	70-0749	"		.003	N.D.
	MF-0308	70-0750	"		.004	N.D.
	MF-0309	70-0751	"		.006	N.D.
	MF-0310	70-0752	"		.003	N.D.
	MF-0311	70-0753	"		.005	N.D.
	EPA QC	581 # 1	1/100		.026	29
	MF-0312	70-0754	1/1		.009	10
	MF-0313	70-0755	"		.010	11
	MF-0314	70-0756	"		.009	10
	MF-0315	70-0757	"		.009	10
	MF-0316	70-0758	"		.005	N.D
	MF-0317	70-0759	"		.004	N.D.
	EPA QC	581 # 1	1/100		.025	27.5

*Results corrected for dilutions and blank.

PROJECT MANAGER 1/19 DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.17.84

MODE: GFAA

OPERATOR: E. Dantsker

INJ. VOL.: 20µl

METAL: Pb

AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475 # 4	1/100		.025	24.6
	Meth. Blk	M. Blk.	1/1		.000	<5
	MF-0304	70-0746	"		.000	<5
	MF-0305	70-0747	1/25		.012 ~~.005~~	310
	MF-0305	D. 70-0747	"		.011	280
	MF-0305	Sp. 70-0747	(")	10µg	.019	(19)
	MF-0306	70-0748	1/25		.007	190
	MF-0307	70-0749	"		.008	210
	MF-0308	70-0750	"		.013	330
	MF-0309	70-0751	"		.081	1940
	MF-0310	70-0752	"		.011	280
	MF-0311	70-0753	"		.018	450
	EPA QC	475 # 4	1/100		.023	23
	MF-0312	70-0754	1/25		.093	2220
	MF-0313	70-0755	"		.034	830
	MF-0314	70-0756	"		.020	500
	MF-0315	70-0757	1/50		.015	750
	MF-0316	70-0758	1/25		.028	680
	MF-0317	70-0759	1/1250		.034	41,360
	EPA QC	475 # 4	1/100		.025	24.6

*Results corrected for dilutions and blank.

PROJECT MANAGER

DATE 1/18

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.17.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: Be AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475 # 4	1/20		.099	99
	Meth. Blk	M. Blk.	1/1		.000	<5
	MF-0304	70-0746	4		.003	↓
	MF-0305	70-0747	"		.013	13
	MF-0305	D. 70-0747	"		.010	10
	MF-0305	Sp. 70-0747	(")	20µg/L	.029	29
	MF-0306	70-0748			.006	6
	MF-0307	70-0749			.010	10
	MF-0308	70-0750			.012	12
	MF-0309	70-0751			.011	11
	MF-0310	70-0752			.012	12
	MF-0311	70-0753			.010	10
	EPA QC	475 # 4	1/20		.102	102
	MF-0312	70-0754			.012	12
	MF-0313	70-0755			.016	16
	MF-0314	70-0756			.012	12
	MF-0315	70-0757			.011	11
	MF-0316	70-0758			.010	10
	MF-0317	70-0759			.004	<5
	EPA QC	475 # 4	1/20		.102	102

*Results corrected for dilutions and blank.

PROJECT MANAGER DATE 1/18

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.17.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: V AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	47543	1/100		.020	746
	Meth. Blk	M. Blk.	1/1		.001	N.D.
	MF-0304	70-0746	"		.000	N.D
	MF-0305	70-0747	"		.017	632
	MF-0305	D. 70-0747	"		.018	670
	MF-0305	Sp. 70-0747	(")	1000ppb	.046	1089
	MF-0306	70-0748	"		.012	442
	MF-0307	70-0749	"		.016	594
	MF-0308	70-0750	"		.016	594
	MF-0309	70-0751	"		.022	822.
	MF-0310	70-0752	"		.010	365
	MF-0311	70-0753	"		.012	442
	EPA QC	47543	1/100		.020	746
	MF-0312	70-0754			.021	784
	MF-0313	70-0755			.021	784
	MF-0314	70-0756			.020	746
	MF-0315	70-0757			.024	899
	MF-0316	70-0758			.015	556
	MF-0317	70-0759			.023	860
	EPA QC	47543	1/100		.020	746

*Results corrected for dilutions and blank.

PROJECT MANAGER DATE 1/17

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.17.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.:

METAL: Co AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475 ± 3	1/100		.061	511.
	Meth. Blk	M. Blk.	1/1		.000	N.D.
	MF-0304	70-0746	"		.000	N.D
	MF-0305	70-0747	"		.021	164.
	MF-0305	D. 70-0747	"		.022	173.
	MF-0305	Sp. 70-0747	"	500ppb	.077	468.
	MF-0306	70-0748			.024	190.
	MF-0307	70-0749			.023	182.
	MF-0308	70-0750			.014	104.
	MF-0309	70-0751			.022	173
	MF-0310	70-0752			.013	95.
	MF-0311	70-0753			.020	156.
	EPA QC	475 ± 3	1/100		.059	494.
	MF-0312	70-0754			.020	156.
	MF-0313	70-0755			.028	223.
	MF-0314	70-0756			.022	173
	MF-0315	70-0757			021	164.
	MF-0316	70-0758			.021	164.
	MF-0317	70-0759			.021	251.
	EPA QC	475 ± 3	1/100		.058	494.

*Results corrected for dilutions and blank.

PROJECT MANAGER 1/17 DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.16.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: Fe AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475#6	1/100		.119	955.
	Meth. Blk	M. Blk.	"		.003	N.D.
	MF-0304	70-0746	"		.001	N.D.
	MF-0305	70-0747	1/100		.185	149334
	MF-0305	D. 70-0747	"		.155	124891
	MF-0305	Sp. 70-0747	(")	1000 µg/l	.363	1436.
	MF-0306	70-0748	"		.147	118372.
	MF-0307	70-0749	"		.108	86596.
	MF-0308	70-0750	"		.139	111854.
	MF-0309	70-0751	"		.183	147705.
	MF-0310	70-0752	"		.159	128150.
	MF-0311	70-0753	"		.156	125705
	EPA QC	475#6	1/100		.119	955
	MF-0312	70-0754	"		.301	243879
	MF-0313	70-0755	"		.315	255256
	MF-0314	70-0756	"		.260	210443
	MF-0315	70-0757	"		.420	340808
	MF-0316	70-0758	"		.178	143631
	MF-0317	70-0759	1/5000		.030	152173
	EPA QC	475#6	1/100		.121	972

*Results corrected for dilutions and blank.

PROJECT MANAGER

1/16 DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 4/6.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: Cr AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475#6	1/100		.136	248.
	Meth. Blk	M. Blk.	1/1		-.003	N.D.
	MF-0304	70-0746	"		-.005	N.D.
	MF-0305	70-0747	"		.089	161.
	MF-0305	D. 70-0747	"		.074	134.
	MF-0305	Sp. 70-0747	"	250ppb	.193	189.
	MF-0306	70-0748	"		.075	135.
	MF-0307	70-0749	"		.093	169.
	MF-0308	70-0750	"		.083	150.
	MF-0309	70-0751	"		.137	250.
	MF-0310	70-0752	"		.101	184.
	MF-0311	70-0753	"		.181	331.
	EPA QC	475#6	1/100		.136	248.
	MF-0312	70-0754	"		.122	22200.
	MF-0313	70-0755	"		.081	14700.
	MF-0314	70-0756	1/1		.357	657.
	MF-0315	70-0757	1/200		.118	43000.
	MF-0316	70-0758	"		.166	60600.
	MF-0317	70-0759	1/100		.179	32784.
	EPA QC	475#6	1/100		.133	243.

*Results corrected for dilutions and blank.

PROJECT MANAGER

DATE 1/16

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.16.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: Ni AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475 # 6	1/100		.062	298.
	Meth. Blk	M. Blk.	1/1		.001	N.D.
	MF-0304	70-0746	"		.003	N.D.
	MF-0305	70-0747	"		.084	406.
	MF-0305	D. 70-0747	"		.074	357.
	MF-0305	Sp. 70-0747	(")	400ppb	.159	362.
	MF-0306	70-0748	"		.077	372.
	MF-0307	70-0749	"		.072	347.
	MF-0308	70-0750	"		.059	284.
	MF-0309	70-0751	"		.066	318.
	MF-0310	70-0752	"		.039	186.
	MF-0311	70-0753	"		.075	362.
	EPA QC	475 # 6	1/100		.063	303.
	MF-0312	70-0754	1/1		.087	421.
	MF-0313	70-0755	"		.085	411.
	MF-0314	70-0756	"		.080	386.
	MF-0315	70-0757	"		.083	401.
	MF-0316	70-0758	"		.089	430.
	MF-0317	70-0759	1/25		.041	489.
	EPA QC	475 # 6	1/100		.060	289.

*Results corrected for dilutions and blank.

PROJECT MANAGER

1/16
DATE

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.16.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: Mn AUTO. CAL.: —

CASE #: 2343

PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475#6	1/200		.136	253
	Meth. Blk	M. Blk.			.000	N.D.
	MF-0304	70-0746			.000	N.D.
	MF-0305	70-0747	1/100		.087	16131.
	MF-0305	D. 70-0747	"		.072	13331
	MF-0305	Sp. 70-0747	" /	500µg	.363	515.
	MF-0306	70-0748	"		.068	12584
	MF-0307	70-0749	"		.070	12958
	MF-0308	70-0750	"		.063	11652.
	MF-0309	70-0751	"		.087	16131.
	MF-0310	70-0752	"		.044	8106.
	MF-0311	70-0753	"		.078	14451.
	EPA QC	475#6	1/200		.136	253
	MF-0312	70-0754	1/100		.077	14265
	MF-0313	70-0755	"		.084	15571
	MF-0314	70-0756	"		.071	13145
	MF-0315	70-0757	"		.076	14078
	MF-0316	70-0758	"		.089	16504
	MF-0317	70-0759	"		.091	16878
	EPA QC	475#6	1/200		.134	249.

*Results corrected for dilutions and blank.

PROJECT MANAGER DATE 1/16

JTC ENVIRONMENTAL CONSULTANTS, INC.

METALS ANALYSIS LOG SHEET

DATE: 1.16.84 MODE: Flame

OPERATOR: E. Dantsker INJ. VOL.: —

METAL: Zn AUTO. CAL.: —

CASE #: 2343

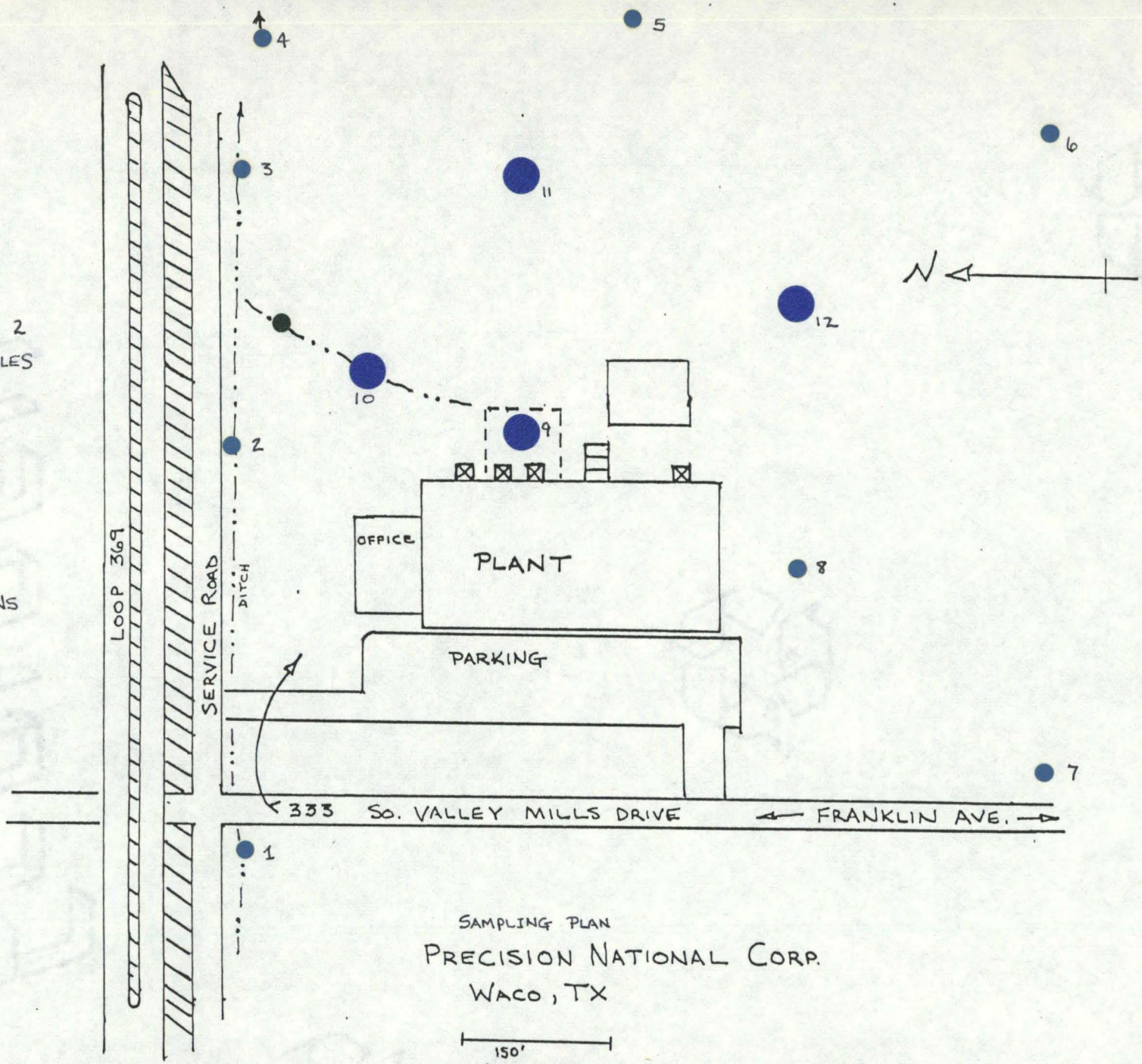
PROJECT	SAMPLE ID	JTC LOG NO.	DILN FACTOR	SPIKE ADDED	AVE. PK HT or ABS	* CONC.
EPA-70	EPA QC	475#4	1/20		.050	79.
	Meth. Blk	M. Blk.			.006	N.D.
	MF-0304	70-0746			.006	N.D.
	MF-0305	70-0747	1/4		.102	666
	MF-0305	D. 70-0747	"		.079	126 58
	MF-0305	Sp. 70-0747	"	200µg/L	.222	197
	MF-0306	70-0748	1/1		.276	459
	MF-0307	70-0749	"		.206	341
	MF-0308	70-0750	1/2		.366	1220
	MF-0309	70-0751	"		.247	820
	MF-0310	70-0752	1/1		.229	380
	MF-0311	70-0753	"		.320	533
	EPA QC	475#4	1/20		.051	81.
	MF-0312	70-0754	1/2		.313	1042
	MF-0313	70-0755	"		.378	1261
	MF-0314	70-0756	"		.316	1052
	MF-0315	70-0757	"		.284	945
	MF-0316	70-0758	"		.304	1012
	MF-0317	70-0759	1/4		.221	1466
	EPA QC	475#4	1/20		.049	77

*Results corrected for dilutions and blank.

PROJECT MANAGER 1/16 DATE

PROPOSED SAMPLING SCHEME

- GRAB SAMPLES 8 LOCATIONS PLUS 2 BACKGROUND SAMPLES
- RECON. INSPECTION SAMPLE LOCATION
- COMPOSITE SAMPLE LOCATIONS (3-5 GRABS PER COMPOSITE)

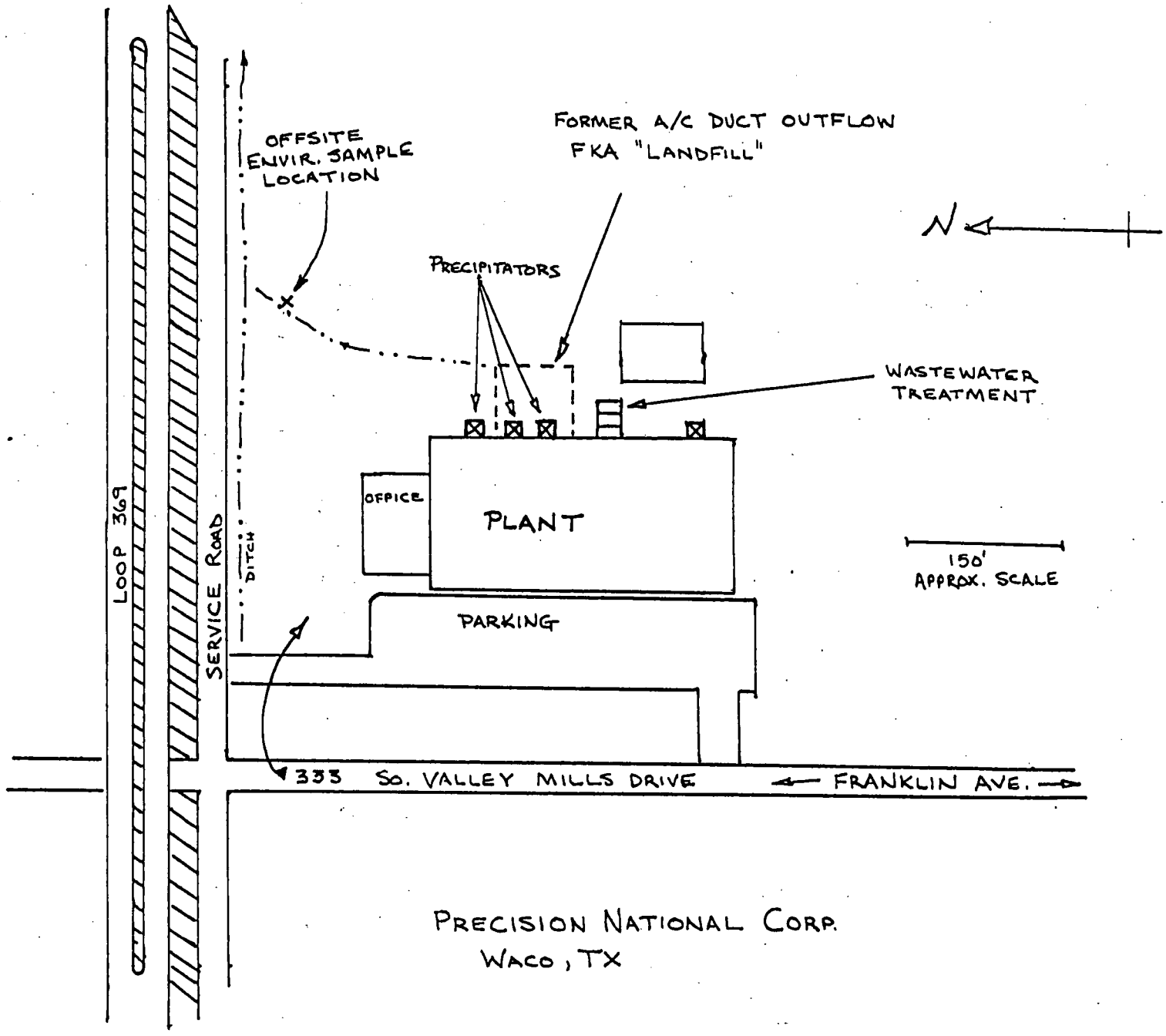


SAMPLING PLAN

PRECISION NATIONAL CORP.

WACO, TX

150'
APPROX SCALE



PRECISION NATIONAL CORP.
WACO, TX

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

1-11-84
(Date)

RECEIPT FOR SAMPLES

NAME AND TITLE OF EPA REPRESENTATIVE: G. A. Gallagher
FIT, Ecology & Environment, Inc
G. A. Gallagher
(Signature)

SAMPLES COLLECTED:

SAMPLE NUMBER	TIME	PLACE COLLECTED	TYPE	VOLUME	SPLIT SAMPLE REQUESTED	SPLIT SAMPLE PROVIDED
01	0933	30' N of Precision 120' W of S Driveway	Soil	8oz	No	
02	0944	30' N. of Precision 100' W of RR Tracks	Soil	8oz	NO	
03	0954	70 yds. N of Precision 100 yd. S of Plant	Soil	8oz	NO	
04	1013	40' W. of RR Tracks Middle W. property line	Soil	8oz	No	
05	1038	25' SE of Entland Rd. off-site	Soil	8oz	No	
06	1040	8' S of Valley Mills Loop 340 off-site	Soil	8oz	No	
07	1107	70 yds. SE of SE corner of Factory Bldg.	Soil	8oz	No.	
08	1118	25' S. of Valley Mills Rd - access from ramp	Soil	8oz	No.	
09	1208	30' S. of Access Rd, 25 yds W. of RR	Soil	8oz	No	

ACKNOWLEDGEMENT OF FACILITY REPRESENTATIVE

The undersigned acknowledges that the samples described above have been collected.

NAME, TITLE AND ADDRESS OF FACILITY REPRESENTATIVE:

W. D. Matthews
(Signature)

1-11-84
(Date)

DISTRIBUTION: One copy facility representative
One copy for inspector's records
Original to Regional Office

TXD056363708
SUPERFUND FILE

JAN 21 1993

REORGANIZED
Precisional
Natl Corp.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

1-11-84
(Date)

RECEIPT FOR SAMPLES

NAME AND TITLE OF EPA REPRESENTATIVE: G.A. Gallagher III
FIT- Ecology & Environment
G.A. Gallagher III
(Signature)

SAMPLES COLLECTED:

SAMPLE NUMBER	TIME	PLACE COLLECTED	TYPE	VOLUME	SPLIT SAMPLE REQUESTED	SPLIT SAMPLE PROVIDED
10	1249	NE corner of property along drainage ditch 60' from Access Rd.	Soil	8oz	NO	
11	1257	by lg. ditch discharge Begining of sm.	Soil	8oz	NO	
12	1318	drainage from fenced area Behind factory E.	Soil	8oz.	No	
13	1334	side of Parking, head of drainage.	Soil	8oz	NO.	

ACKNOWLEDGEMENT OF FACILITY REPRESENTATIVE

The undersigned acknowledges that the samples described above have been collected.

NAME, TITLE AND ADDRESS OF FACILITY REPRESENTATIVE:

W.P. Mathews
(Signature)

1-11-84
(Date)

DISTRIBUTION: One copy facility representative
One copy for inspector's records
Original to Regional Office

This Document Contained Material Which Was Not Filmed/Scanned

Title Ecology and Environment, Inc.
Region VI Memorandum Sampling Inspection at
Precision National Corporation (Photographs)

Please Refer to the File in Superfund Records Center