

RADIOLOGIC AND ENGINEERING ASSESSMENT

FOR

DOE ID NO.: GJ-01572-RS
ADDRESS: 1933 ELM AVENUE

AUGUST 1985

FOR

URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT OFFICE

ALBUQUERQUE OPERATIONS OFFICE

DEPARTMENT OF ENERGY

BY

BENDIX FIELD ENGINEERING CORPORATION
P.O. Box 1569
Grand Junction, Colorado 81502

APPROVED BY

Michael H. Tucker
M. TUCKER
DOE PROJECT ENGINEER

DATE

August 26, 1985

REA01572:REA-619

8509100225 850827
PDR WASTE
WM-54 PDR

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

The location, DOE ID No. GJ-01572-RS, is a single-family residence located at 1933 Elm Avenue, Grand Junction, Colorado.

The purpose of this assessment is to evaluate the extent of uranium millsite contamination at this property. This assessment includes recommended remedial action, estimated volume of material to be removed, and estimated cost of the proposed action.

1.2 Evaluation and Recommendation

The action recommended is the removal of contaminated material and restoration of the property to its original condition. The identified residual radioactive material found on this property is tailings; the estimated volume is: exterior, 5 cu. yd.; interior, 0 cu. yd.

Estimated cost to perform remedial action, including dislocation when applicable, is \$795. Remedial action on this property will take approximately 4 days to complete.

2.0 PROPERTY DESCRIPTION

2.1 General Description

Address: 1933 Elm Avenue, Grand Junction, Colorado

Zoning: Residential (RSF-8)

Lot Size: Approximately 9,375 sf (0.22 acres)

Legal Description: The east 13 feet of Lot 3, and all of Lot 4, Block 2, Arcadia Village Subdivision, City of Grand Junction, County of Mesa, State of Colorado.

Point of Reference: This property is located approximately 2 mile(s) north of the State of Colorado Tailings Repository. Appendix Figure 2.1 shows the property location relative to its surroundings.

Utilities: Utility locations are shown in Appendix Figure 2.2.

Electrical:	Overhead
Gas:	Underground
Telephone:	Overhead
Sewer:	Underground
Water:	Underground
Cable TV:	Overhead

Bordering Properties:

North:	Elm Avenue
South:	Alley (gravel)
East:	Single-family residence
West:	Single-family residence

2.2 Existing Facilities and Structures

Primary Structure:

Type:	Single-story residence with enclosed patio
Size:	Approximately 2,046 sf, including basement
Construction Date:	1950
Construction:	Wood-frame with brick veneer
Foundation:	Concrete stemwall on spread footing
Footing Depth:	Not determined
Basement:	Yes- under entire living area
Crawl Space:	None
Condition:	Good

Other Structures:

Type:	Patio (screened-in)
Size:	Approximately 242 sf
Construction:	Wood-frame
Foundation:	Concrete slab-on-grade
Condition:	Good

General Remarks:

Structures, utilities, landscaping, and other special features of this property are included in Appendix Figure 2.2.

Historical Data:

This structure is not over 50 years old. Therefore, it does not meet the eligibility criteria for consideration of inclusion on the National Register of Historic Places.

3.0 RADIOLOGIC SURVEY

3.1 Introduction

Radiologic data were collected by Bendix at DOE ID No. GJ-01572-RS on July 10, 1985. Data collection methods were performed in accordance with procedures fully described in the Radiologic Support Operations Procedures Manual GJ-07(84) (Bendix Field Engineering Corporation, 1984). These data were evaluated to determine the areal and vertical extent of uranium mill tailings contamination at this property as well as any other contaminated material that may have originated from the millsite.

A review of the inclusion data from Oak Ridge National Laboratory (ORNL) was conducted. These records indicate contamination in the northwest and southwest corners of the property.

The Bendix radiologic survey was designed to investigate the entire property, with emphasis on previously identified areas of contamination. Conclusions based upon data analyses are discussed in Section 3.5, Extent of Contamination. Photocopies of the Official Survey Report, team leader notes, deconvolution graphs, and Exterior Gamma Scan map are included in the Appendix (Section 6.0).

3.2 Gamma Exposure-Rate Surveys

3.2.1 Exterior Findings

Background Readings: 15 to 16 uR/h
Highest Outside Gamma Reading (HOG): 49 uR/h

Exterior radium-concentration measurements are presented in Appendix Table 3.1. Grid-point survey results are shown in Appendix Figure 3.1.

3.2.2 Interior Findings

Background Readings: 13 to 18 uR/h
Highest Inside Gamma Reading (HIG): 18 uR/h

Interior gamma exposure-rate measurements are summarized in Appendix Table 3.2.

3.3 Boreholes, Soil Samples, and Other Measurements

Areas which displayed elevated gamma levels were further investigated; these areas are shown in Appendix Figure 3.2. Data from these investigations are included in Appendix Table 3.1.

3.4 Radon/Radon Daughter Concentration (RDC)

The working level was not assessed by CDH. No RDC measurements were taken by Bendix.

3.5 Extent of Contamination

Appendix Figure 3.3 shows identified areas and estimated depths of contamination on this property, based on assessments of all measurements taken. As noted in this figure, areas recommended for remedial action that contain identified residual radioactive materials are:

- (Area A) Surface Material: Lawn
 Direction From Primary Structure: Northwest
 Other Directions: North property boundary
 Total Depth of Contamination: 6 inches
 Approximate Square Footage: 45

- (Area B) Surface Material: Soil
 Direction From Primary Structure: East
 Other Directions: East property boundary
 Total Depth of Contamination: 6 inches
 Approximate Square Footage: 105

- (Area C) Surface Material: Rock
 Direction From Primary Structure: Southeast
 Other Directions: East property boundary
 Total Depth of Contamination: 6 inches
 Comments: Rock garden
 Approximate Square Footage: 21

- (Area D) Surface Material: Concrete
 Direction From Primary Structure: South
 Other Directions: Near alley
 Total Depth of Contamination: 6 inches
 Other (height or thickness): 6-inch-thick by eight-inch-wide concrete.
 Comments: This is a slab of concrete for a fence pole.
 Approximate Square Footage: 0.4

- (Area E) Surface Material: Soil
 Direction From Primary Structure: Southwest
 Other Directions: Next to alley in south yard
 Total Depth of Contamination: 9 inches
 Approximate Square Footage: 52

- (Area F) Surface Material: Soil
 Direction From Primary Structure: Southwest
 Other Direction: West property boundary
 Total Depth of Contamination: 6 inches
 Approximate Square Footage: 2

4.0 RECOMMENDED REMEDIAL ACTION

4.1 Decontamination and Restoration

The recommended remedial action for this property, DOE ID No. GJ-01572-RS, includes removal of all areas identified as containing radioactive material (as discussed in Section 3.5 and shown in Appendix Figure 3.3) and transport of removed material to the disposal site.

After remedial action is completed, the areas involved will be restored to original condition in accordance with the Bendix drawings, Vicinity Properties General Construction Specification (Bendix Field Engineering Corporation, 1984), and Statement of Work for Construction Subcontractor.

Dislocation of the occupants will not be required for this remedial action.

4.2 Evaluation of Recommended Remedial Action

Volume calculations of the areas included for remedial action are presented in Appendix Table 4.1. Cost estimates are presented in Appendix Table 4.2.

Estimated cost of remedial action is \$795.

This remedial action will result in removal of the identified residual radioactive materials.

There is no owner preference with respect to remedial action and no legal or other complications are foreseen at this time.

5.0 REFERENCES

ARIX, A Professional Corporation, Procedures Manual for the Grand Junction Remedial Action Program, for Colorado Department of Health, Radiation Control Division, and the U.S. Department of Energy, 1983.

Bendix Field Engineering Corporation, Procedures Manual Radiologic Support Operations Grand Junction Vicinity Properties, (GJ-07), for U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

Bendix Field Engineering Corporation, Engineering, Construction, and Land Support Manual Grand Junction Vicinity Properties Project, (GJ-08), for U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

Bendix Field Engineering Corporation, Grand Junction Vicinity Properties Operating Manual, (GJ-16) for U.S. Department of Energy, Nuclear Energy Programs, Division of Remedial Action Projects, UMTRA, 1984.

Bendix Field Engineering Corporation, Vicinity Properties General Construction Specification, for U.S. Department of Energy, Nuclear Energy Programs, Division of Remedial Action Projects, UMTRA, 1984.

Bendix Field Engineering Corporation, Environmental Assessment of Preliminary Cleanup Activities at Offsite Properties Contaminated by Tailings from the Grand Junction Inactive Uranium Millsite, (GJ-04), for U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations, Albuquerque, New Mexico, 1983.

U.S. Department of Energy, Programmatic Memorandum of Agreement (DOE No. DE-GM04-84AL28460) between the U.S. Department of Energy, the Advisory Council on Historic Preservation, and the Colorado State Historic Preservation Officer, for UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

U.S. Department of Energy, Vicinity Properties Management and Implementation Manual, for UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

U.S. Environmental Protection Agency, Standards for Remedial Action at Inactive Uranium Processing Sites (40 CFR Part 192), Washington, D.C., 1983.

6.0 APPENDIX

This Appendix contains the following:

Appendix Tables:

Table 3.1	Radium Concentrations at Exterior Locations
Table 3.2	Summary of Interior Gamma Exposure Rates
Table 4.1	Area and Volume Calculations
Table 4.2	Estimated Cost of Decontamination and Restoration

Appendix Figures:

Figure 2.1	Vicinity Map
Figure 2.2	Site Plan
Figure 3.1	Exterior Grid-Point Exposure Rates
Figure 3.2	Exterior Sample Locations
Figure 3.3	Exterior Estimated Extent of Contamination

Official Survey Report

Team Leader Notes

Deconvolution Graphs (Apparent Radium-226 Concentration)

Exterior Gamma Scan Map

Radium Concentrations at Exterior Locations

DOE ID #GJ-01572-RS

1933 Elm Avenue

Page 1 of 3

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
1	144227	00	DS	2.7		*	Northwest of primary structure
		06	DS	1.7		*	
2	186275	03	TC	3.6		*	Water line DC = 0 inches
		06	TC	3.9		*	
		09	TC	3.9		*	
		12	TC	3.9		*	
		15	TC	3.9		*	
		18	TC	4.0		*	
		21	TC	4.1		*	
		24	TC	4.1		*	
		27	TC	4.1		*	
		30	TC	4.2		*	
		33	TC	4.2		*	
		36	TC	4.2		*	
		39	TC	4.3		*	
		42	TC	4.2		*	
		45	TC	4.3		*	
		48	TC	4.3		*	
		51	TC	4.3		*	
3	203243	00	DS	1.8		*	Gas line
		07	DS	<1.0		*	
4	204297	00	DS	3.5		*	East of primary structure
		06	DS	2.3		*	
5	211236	00	DS	1.5		*	North of primary structure
		06	DS	1.9		*	
		12	DS	2.0		*	
		18	DS	1.5		*	
6	214297	03	TC	4.3		*	Southeast of primary structure
		06	TC	4.2		*	
		09	TC	4.1		*	
		12	TC	4.1		*	
		15	TC	4.1		*	
7	221298	00	DS	2.2		*	Southeast of primary structure
		06	DS	1.1		*	
8	222227	00	DS	2.4		*	West of primary structure
		06	DS	1.4		*	

Radium Concentrations at Exterior Locations

DOE ID #GJ-01572-RS

1933 Elm Avenue

Page 2 of 3

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
9	222233	00	DS	1.9		*	West of primary structure DC = 0 inches
		03	TC	3.5		*	
		06	TC	3.6		*	
		09	TC	3.7		*	
		12	TC	3.8		*	
		15	TC	3.9		*	
		18	TC	3.9		*	
		21	TC	3.9		*	
		24	TC	3.9		*	
		27	TC	4.0		*	
		30	TC	4.1		*	
		33	TC	4.2		*	
		36	BH	4.1	1.5	*	
		39	TC	4.1		*	
		42	TC	4.2		*	
		45	TC	4.0		*	
		48	TC	4.0		*	
		51	TC	3.9		*	
		54	TC	4.0		*	
		57	TC	4.0		*	
		60	BH	4.1	2.1	*	
10	227233	00	DS	2.2		*	West side of primary structure
		06	DS	1.1		*	
11	232295	00	DS	1.2		*	Southeast of primary structure
		06	DS	1.3		*	
12	234235	00	DS	1.6		*	Southwest corner of primary structure
		06	DS	1.5		*	
13	234256	00	DS	1.6		*	South of primary structure
		06	DS	1.8		*	
14	236298	00	DS	26.8		*	Southeast of primary structure
		06	DS	1.1		*	
15	256224	00	DS	2.5		*	Southwest of primary structure
		06	DS	1.7		*	
16	260280	00	DS	1.1		*	Background DC = 0 inches
		03	TC	2.9		*	
		06	TC	3.7		*	

Radium Concentrations at Exterior Locations

DOE ID #GJ-01572-RS

1933 Elm Avenue

Page 3 of 3

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
16	260280	09	TC	3.8		*	
		12	TC	3.9		*	
		15	BH	4.0	1.2	*	
		18	TC	4.1		*	
		21	TC	4.2		*	
		24	TC	4.1		*	
		27	TC	4.2		*	
		30	BH	4.1	<1.0	*	
17	263224	03	TC	6.0		*	Southwest of
		06	TC	5.6		*	primary structure
		09	TC	4.9		*	DC = 9 inches
		12	TC	4.5		*	Based on the
		15	TC	4.3	4.7	*	deconvolution graph
		18	TC	4.1		*	
		21	TC	4.1		*	
		24	TC	4.1		*	
		27	BH	4.1	1.2	*	
		30	TC	4.0		*	
18	264227	00	DS	3.5		*	Southwest of
		06	DS	3.2		*	primary structure
		12	DS	1.6		*	
19	272250	00	DS	30.8		*	
20	273250	03	TC	4.3		*	South of
		06	TC	4.3		*	primary structure
		09	TC	4.2		*	DC = 0 inches
		12	TC	4.0		*	
		15	TC	4.0		*	
		18	TC	3.9		*	
		21	TC	4.0		*	
		24	TC	4.0		*	
		27	TC	4.0		*	

Measurement Types: GB = GAD-6 Borehole
 GS = GAD-6 Surface
 DS = Delta Scintillometer
 TC = Total Count Borehole
 SS = Soil Sample
 BH = Combined GAD-6 and
 Total Count Borehole

Notes: DC = Depth of Contamination
 * = No Soil Sample Taken
 [n] = Reading Taken n-Inches
 Above Floor or Ground
 Date of Survey = 07-10-85
 Team Leader = TDH

Table 3.2

Summary of Interior Gamma Exposure Rates

DOE ID No. GJ-01572-RS

1933 Elm Avenue

Page 1 of 1

Location	Number of Readings Taken at Waist Level	Range at Waist Level (uR/h)	Mean at Waist Level (uR/h)	Number of Readings Taken at Surface	Range at Surface (uR/h)	Mean Surface (uR/h)
Basement	10	15-17	17	09	16-18	17
Ground Floor	*	*	*	*	13-18	*

* A walking gamma scan was performed to confirm the absence of interior contamination at this location.

Table 4.1
Area and Volume Calculations
DOE ID No. GJ-01572-RS

Page 1 of 1

<u>AREA</u>	<u>CALCULATIONS(ft)</u>	<u>SF</u>	<u>DEPTH(ft)</u>	<u>CF</u>	<u>CUBIC YARDS</u>
EXTERIOR					
Concrete					
D	0.5 x 0.7 =	0.4 x	0.5 =	0.2	
				<hr/>	
Volume of Concrete				= 0.2 =	0.2/27 = 0.01
Contaminated Fill					
A	9 x 5 =	45 x	.05 =	23	
B	20 x 4 =	80			
	5 x 5 =	25			
				<hr/>	
				105 x 0.5 =	53
C	7 x 3 =	21 x	0.5 =	11	
E	13 x 4 =	52 x	0.8 =	42	
F	2 x 1 =	2 x	0.5 =	1	
				<hr/>	
Volume of Fill				= 130 =	130/27 = 5
TOTAL VOLUME - EXTERIOR					<hr/> = 5

See Appendix Figure 3.3 For Areas

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Table 4.2
Estimated Cost of Decontamination and Restoration
DOE ID No. GJ-01572-RS Page 1 of 1

EXTERIOR

Remove identified residual radioactive material		\$	44
3 cy @ \$14.50/cy (machine-open)			88
2 cy @ \$44/cy (manual-open)			

Remove/replace concrete post			70
Lump sum			

Remove/replace rock garden and flowers			100
Lump sum			

Replace areas with topsoil			58
5 cy @ \$11.50/cy			

Replace areas with sod			45
90 sf @ \$.50/sf			

		\$	405
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TOTAL EXTERIOR			0
----------------	--	--	---

TOTAL INTERIOR			100
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ACCESS CONTROL			505
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SUBTOTAL		\$	25
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CONTINGENCY @ 5%			530
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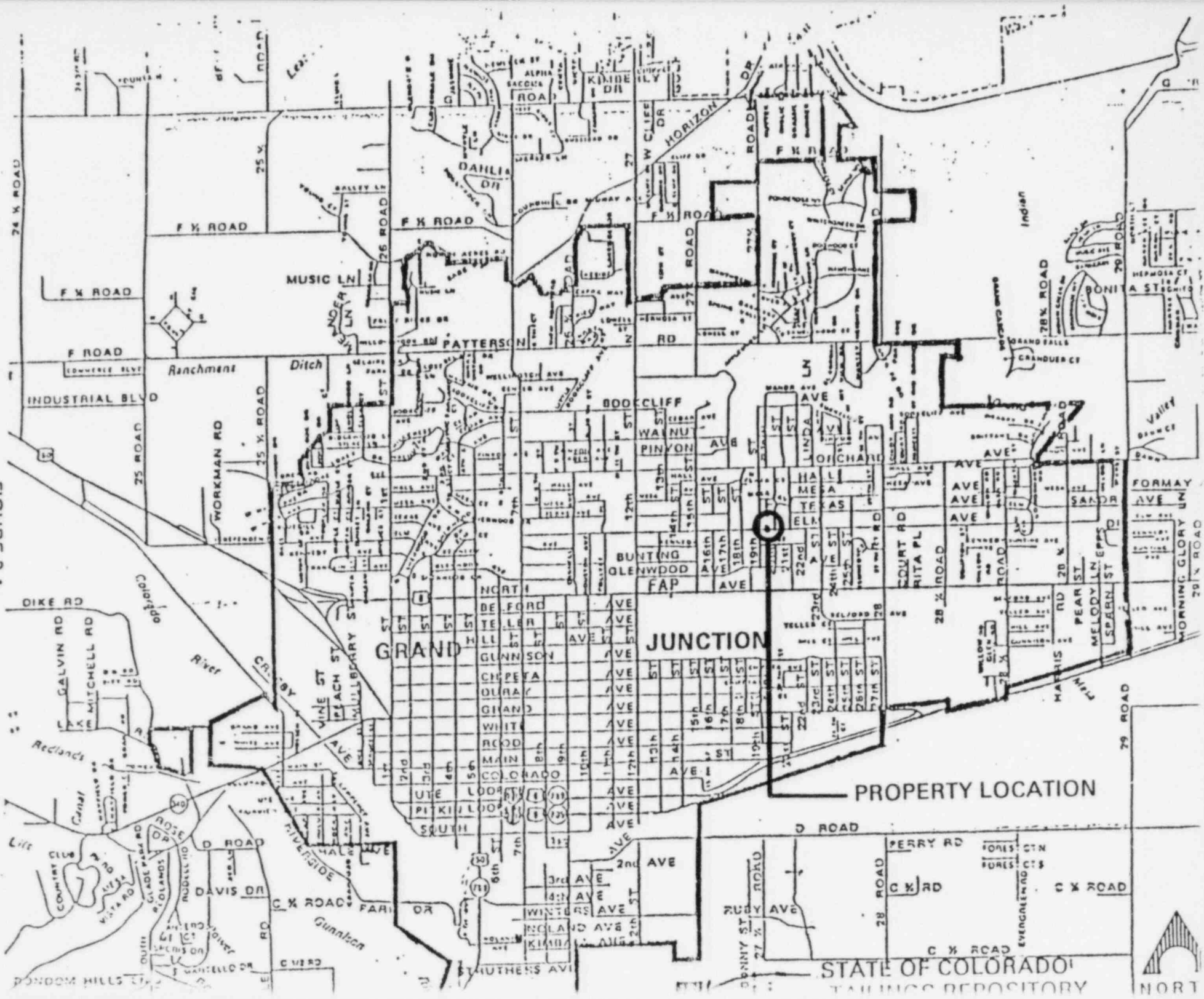
SUBTOTAL		\$	265
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CONTRACTOR OVERHEAD & PROFIT @ 50%			795
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LR082285
REA01572/REA-619/LMR

VICINITY MAP

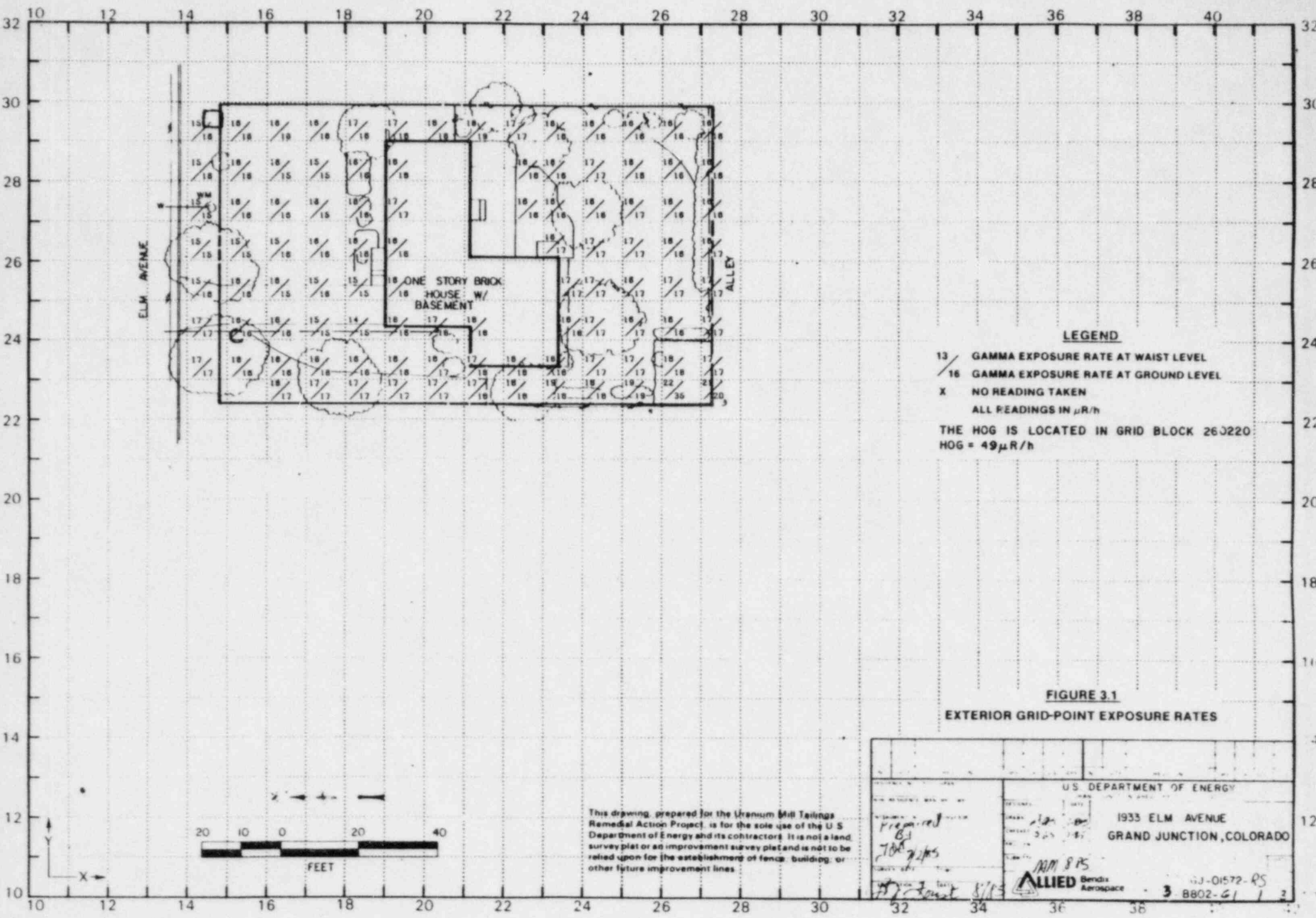


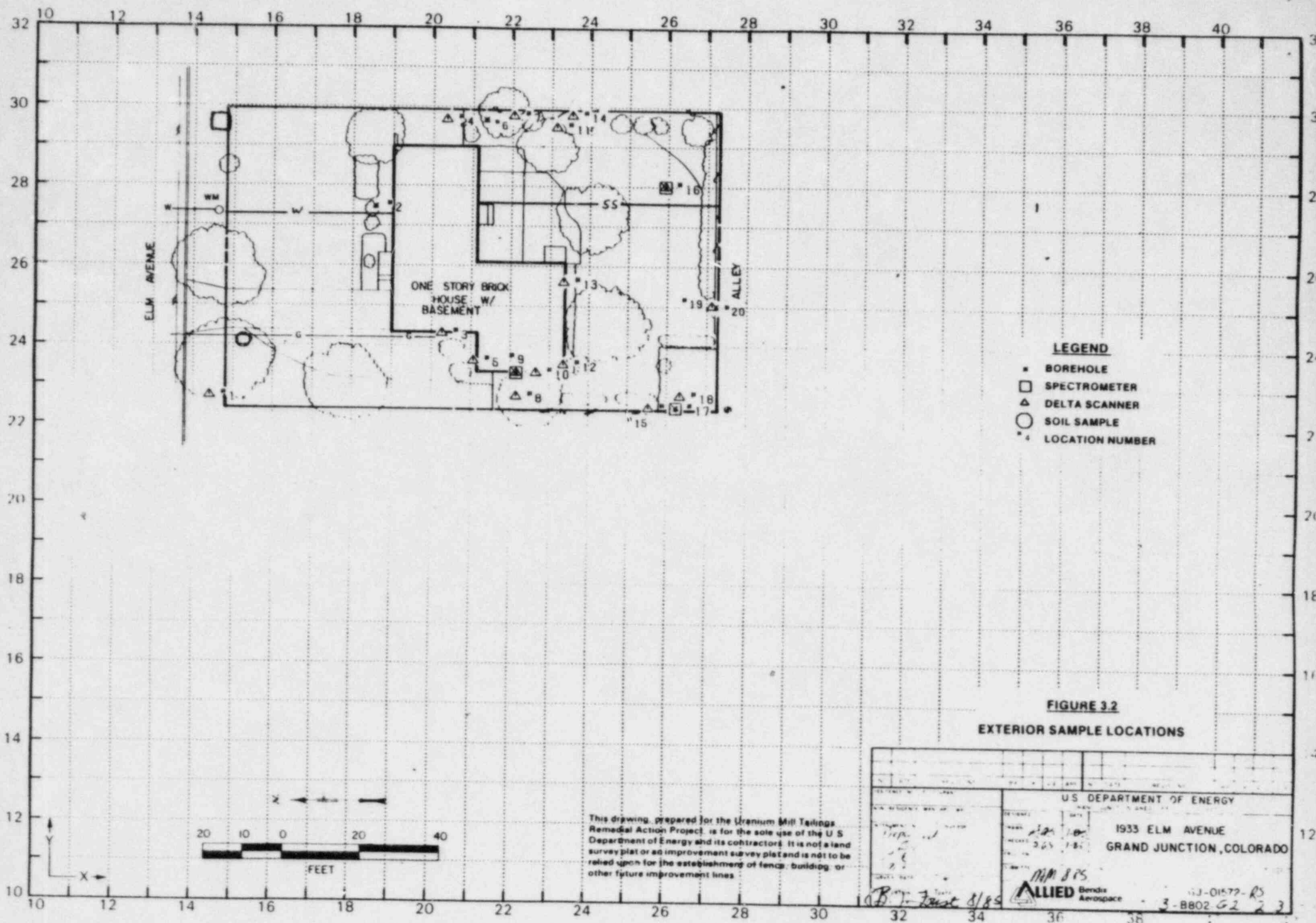
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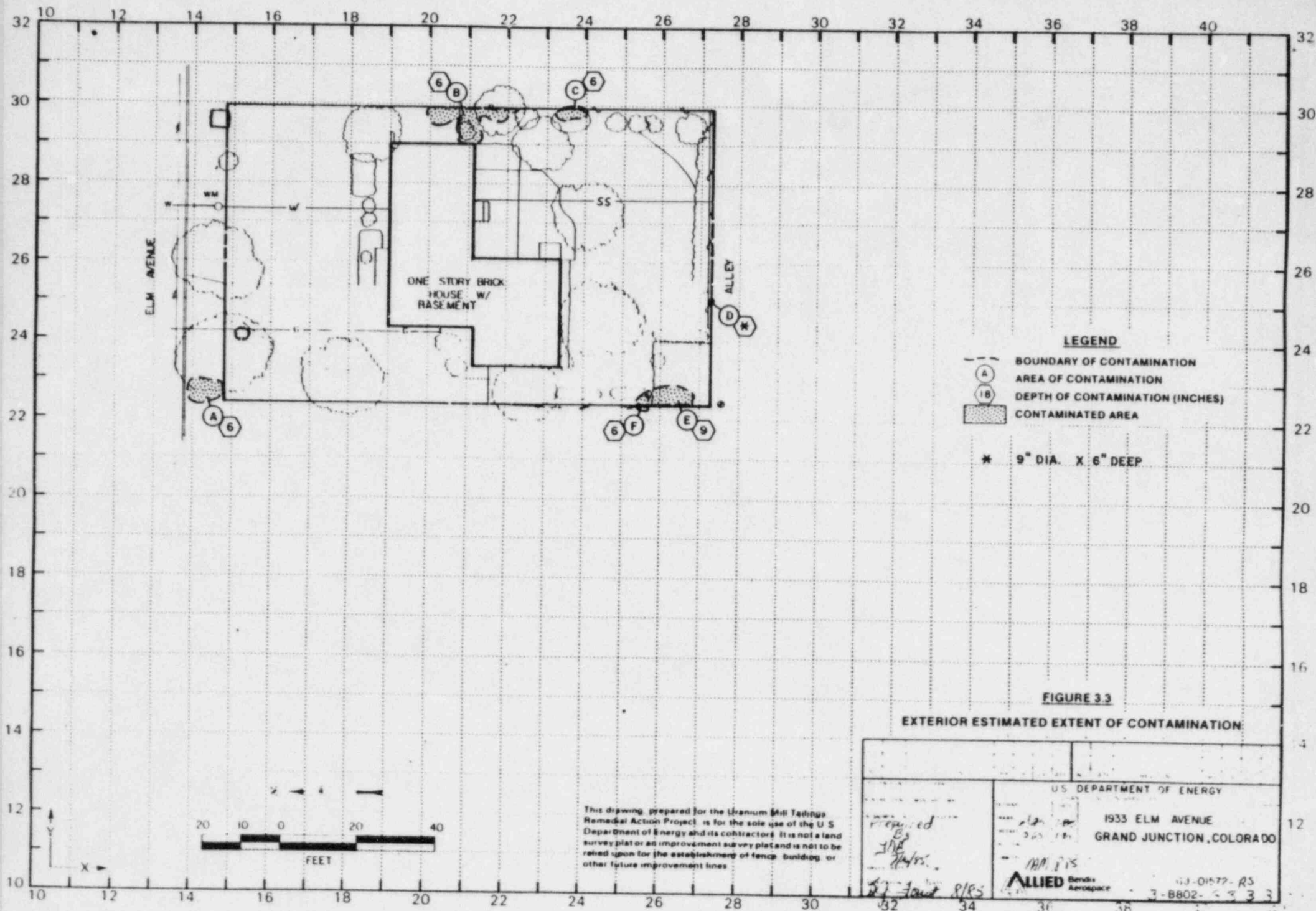
TAX SCHEDULE NO. 2945-124-15-003

U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION PROJECT OFFICE, COLORADO
ADDRESS 1933 ELM AVENUE
GRAND JUNCTION, COLORADO
SURV 855173.85 DRAFT RSK/73.85
DRAWING NO 3-C802 F
SHEET 1 OF 1
NAME: FREDERICK E. HARRIS
DATE: 11/1/73
DRAWN BY: J. L. HARRIS
CHECKED BY: J. L. HARRIS
APPROVED BY: J. L. HARRIS
SCALE: AS SHOWN
PROJECT NO. 855173.85
SHEET NO. 1

This drawing, prepared for the Uranium Mill Tailings Remedial Action Project, is for the sole use of the U. S. Department of Energy and its contractors. It is not a land survey plat or an improvement survey plat and is not to be relied upon for the establishment of fence, building, or other future improvement lines.







3/85

DOE ID NO. GJ - 01572-RS

Date 7/11/85

U.S. DEPARTMENT OF ENERGY
URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT
GRAND JUNCTION VICINITY PROPERTIES

Official Survey Report

Property Address 1933 ELM AVENUE

Property Owner CECIL OLWINE

Address of Owner (if different from above) same

Report Prepared By T. DEAN HERRERA

I. PRESENCE/ABSENCE OF RESIDUAL RADIOACTIVE MATERIALS

☐ No evidence of residual radioactive material on surveyed property.

☒ Residual radioactive materials found at the following locations:

☒ In open areas.

☒ Under or around exterior improvements.

☐ Under or around a typically nonoccupied structure.

☐ Under or around a typically occupied structure.

II. RESULTS OF RADIOLOGIC ASSESSMENT

☐ Levels of radiation from residual radioactive materials, if any, do not exceed EPA Standards and no action is required under the Uranium Mill Tailings Remedial Action Project.

☒ Levels of radiation from residual radioactive materials exceed EPA Standards such that Remedial Action is recommended and will be accomplished, with your consent, as soon as budget and schedule permit.

cc:

G. A. Franz, III, GJ/CDE

J. Themelis, Mgr. UMTRA Proj. Off.

HIG = 18 uR/h
HOG = 49 uR/h

ALLIED Bendix
Aerospace

Bendix Field Engineering Corporation
Grand Junction Operations
Grand Junction, Colorado

Date: July 10, 1985

To: Files

From: T. Dean Herrera

Subject: Team Leader Notes - GJ-01572-RS

Address: 1933 Elm Avenue

Owner: Cecil and Nellie Olwine

Arrival: 0735 Hours

Occupancy: Three

Team Members

T.D. Herrera (Team Leader)
M. Duran
P. Hardy
P.J. Bonner

V. Hebel
N. Wallace
S. Larsen
D. Bell

Instruments

See Equipment Summary sheet

Bendix team members located elevated readings along the west property boundary; this is the area which Oak Ridge National Laboratory (ORNL) indicated to have contamination. Additional areas were discovered in the south yard adjacent to the alley, a slab of concrete used for the fence pole support, and east of the primary structure along the fence line/property boundary. This appears to be spillover. In the backyard there is a rock garden with a small pond surrounded by rock; a couple of those rocks appear to be the source of elevated gamma readings.

Team Leader Notes
T.D. Herrera
GJ-01572-RS
July 10, 1985
Page 2

The sewer line was located and investigated with the downhole scintillometer. The range of 190 to 200 cps was noted coming from the bottom of the hole. All other utilities were also investigated and appear to be uncontaminated.

All team members were frisked before lunch and before leaving the property.

Revisit

Date: August 1, 1985

ORNL is in the process of including the property to the east.

A revisit was made to this property in order to verify one grid point reading. It was also necessary to investigate an area and size of the concrete slab along the alley south of the primary structure.

During this revisit I noticed the property to the west was being remediated.

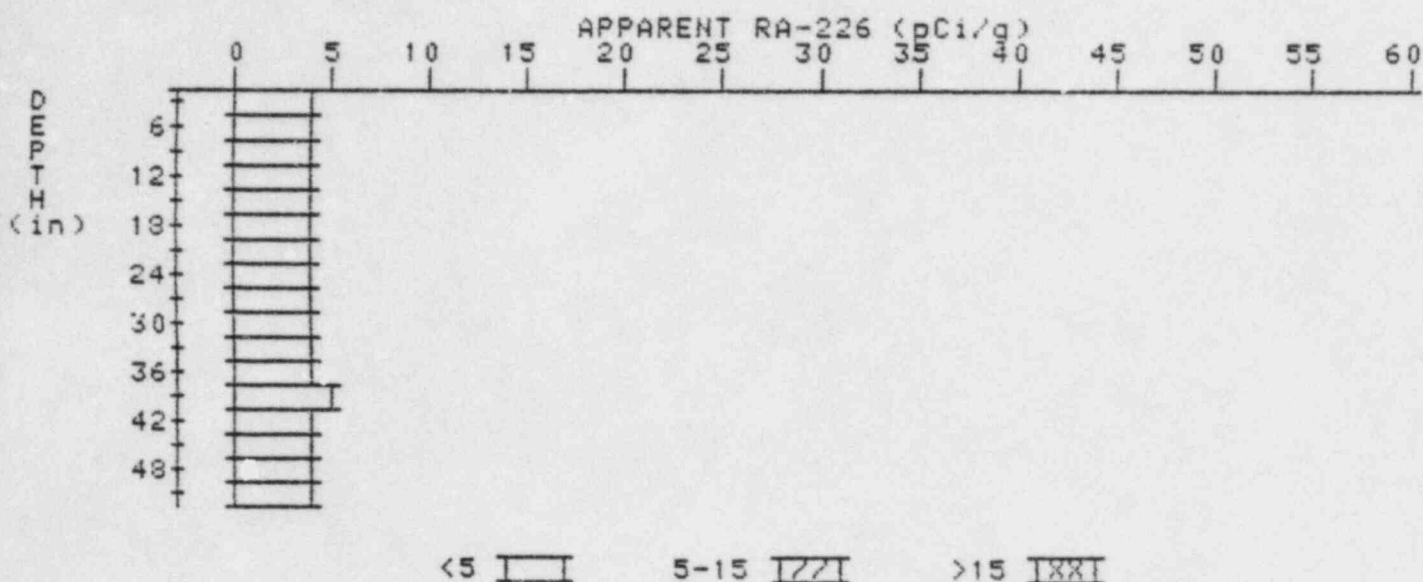
APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

2

PROPERTY NUMBER: GJ-01572-RS

HOLE NUMBER: 2

LOCATION: 136275



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.6	3.6
6	3.9	4.4
9	3.9	3.9
12	3.9	3.9
15	3.9	3.7
18	4.0	4.0
21	4.1	4.3
24	4.1	4.1
27	4.1	3.9
30	4.2	4.4
33	4.2	4.2
36	4.2	4.0
39	4.3	4.7
42	4.2	3.8
45	4.3	4.5
48	4.3	4.3
51	4.3	4.3

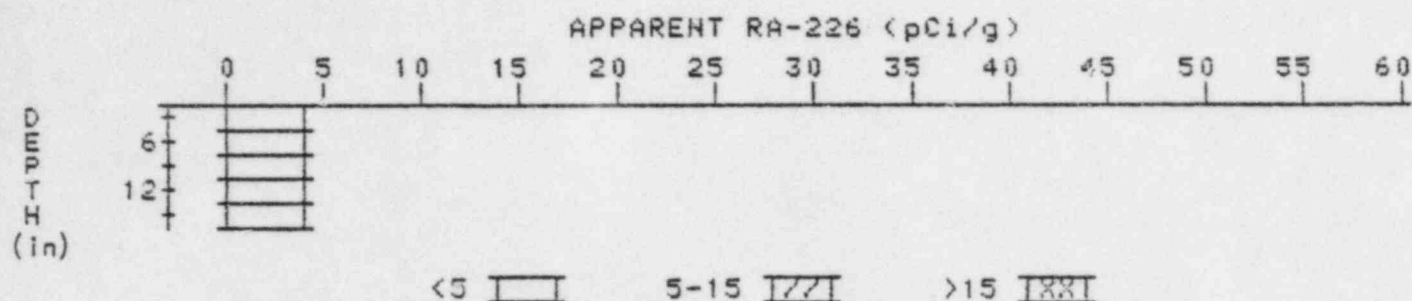
APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

6

PROPERTY NUMBER: GJ-01572-RS

HOLE NUMBER: 6

LOCATION: 214297



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	4.3	4.3
6	4.2	4.2
9	4.1	3.9
12	4.1	4.1
15	4.1	4.1

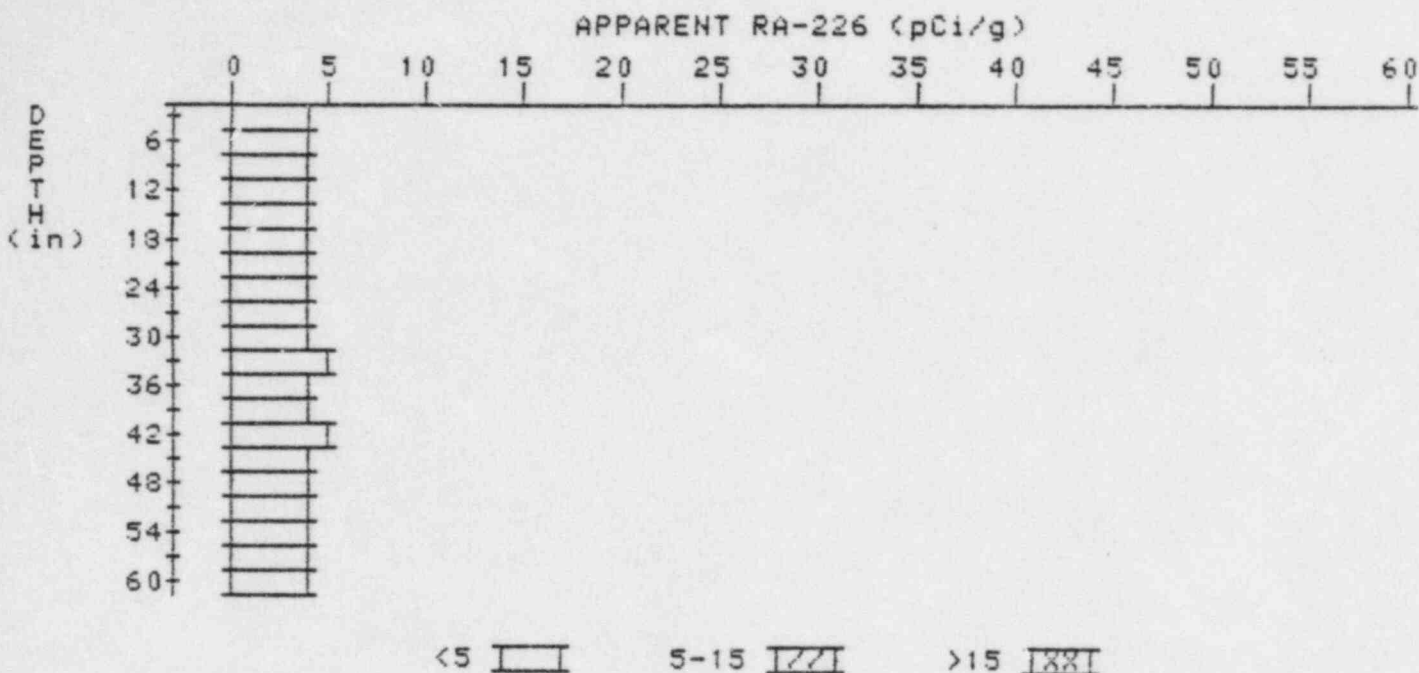
APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

9

PROPERTY NUMBER: GJ-01572-RS

HOLE NUMBER: 9

LOCATION: 222233



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.5	3.5
6	3.6	3.6
9	3.7	3.7
12	3.8	3.8
15	3.9	4.1
18	3.9	3.9
21	3.9	3.9
24	3.9	3.7
27	4.0	4.0
30	4.1	4.1
33	4.2	4.6
36	4.1	3.9
39	4.1	3.9
42	4.2	4.7
45	4.0	3.6
48	4.0	4.2
51	3.9	3.5
54	4.0	4.2

57
60

4.0
4.1

3.6
4.1

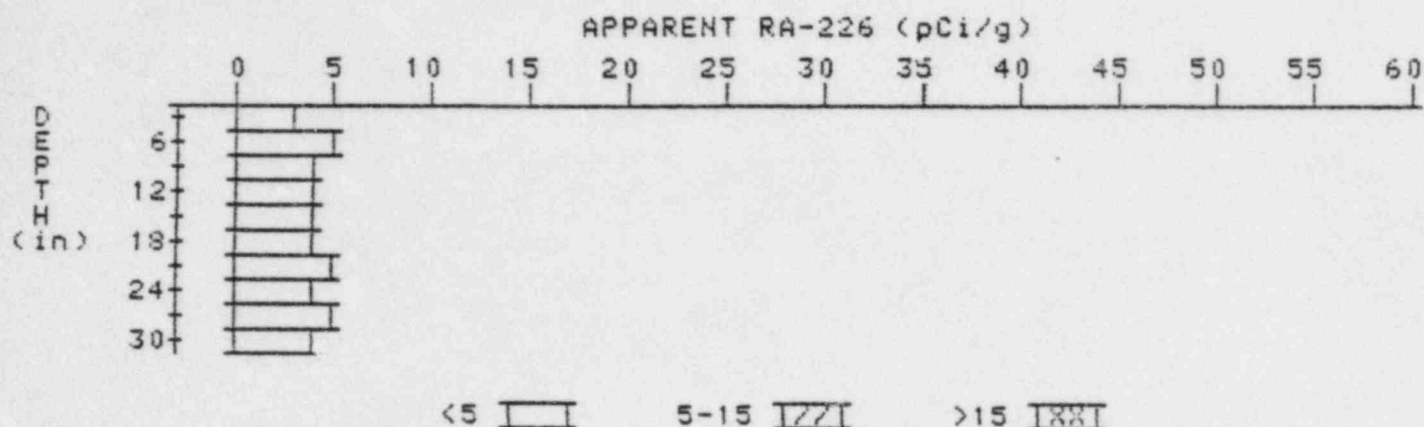
APPARENT RADIUM-226 CONCENTRATION 16

DECONVOLUTION GRAPH

PROPERTY NUMBER: GJ-01572-RS

HOLE NUMBER: 16

LOCATION: 260280



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	2.9	2.9
6	3.7	4.9
9	3.8	3.8
12	3.9	3.9
15	4.0	4.0
18	4.1	4.1
21	4.2	4.6
24	4.1	3.7
27	4.2	4.6
30	4.1	4.1

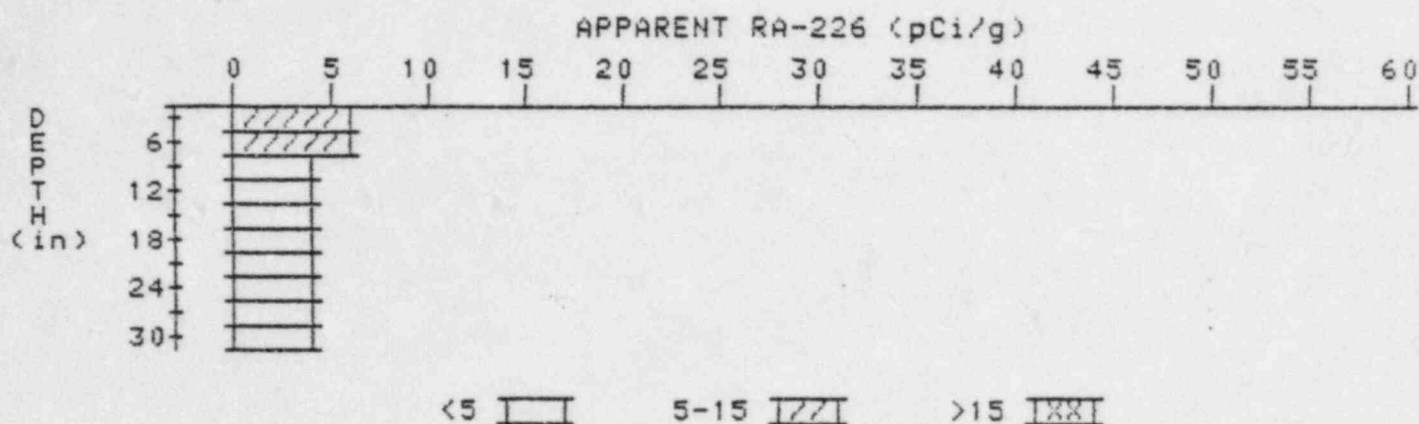
APPARENT RADIUM-226 CONCENTRATION 17

DECONVOLUTION GRAPH

PROPERTY NUMBER: GJ-01572-RS

HOLE NUMBER: 17

LOCATION: 263224



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	6.0	6.0
6	5.6	6.1
9	4.9	4.4
12	4.5	4.1
15	4.3	4.3
18	4.1	3.7
21	4.1	4.1
24	4.1	4.1
27	4.1	4.3
30	4.0	4.0

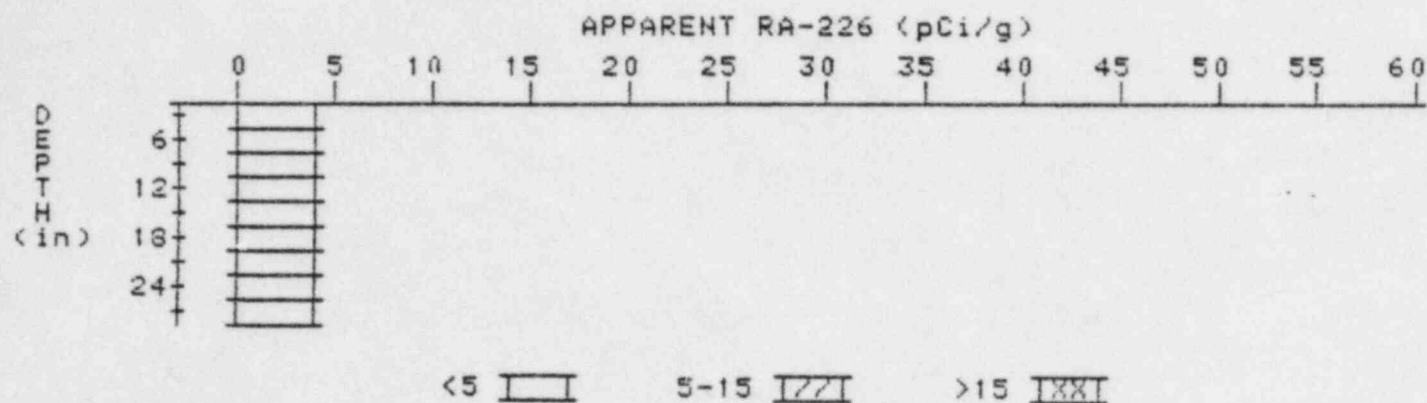
APPARENT RADIUM-226 CONCENTRATION 20

DECONVOLUTION GRAPH

PROPERTY NUMBER: GJ-01572-RS

HOLE NUMBER: 20

LOCATION: 273250



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	4.3	4.3
6	4.3	4.5
9	4.2	4.4
12	4.0	3.6
15	4.0	4.2
18	3.9	3.5
21	4.0	4.2
24	4.0	4.0
27	4.0	4.0

