

RADIOLOGIC AND ENGINEERING ASSESSMENT

FOR

DOE ID NO.: GJ-06141-RS
ADDRESS: 621 NORTH 2ND STREET

JUNE 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 K Tucker

M. TUCKER
DOE PROJECT ENGINEER

DATE

June 18, 1985

REA06141:REA-509

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PDR WASTE PDR
WM-54

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

The location, DOE ID No. GJ-06141-RS, is a single-family residence located at 621 North 2nd Street, 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, 10 cu. yd.; interior, 0 cu. yd.

Estimated cost to perform remedial action, including dislocation when applicable, is \$1,632. Remedial action on this property will take approximately 5 days to complete.

2.0 PROPERTY DESCRIPTION

2.1 General Description

Address: 621 North 2nd Street, Grand Junction, Colorado

Zoning: Residential

Lot Size: Approximately 5,050 sf (0.1 acre)

Legal Description: South 50.5 Ft of Lots 9 through 12, Inc Block 55, City of Grand Junction, County of Mesa, State of Colorado.

Point of Reference: This property is located approximately 2 miles northwest 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:	Single-family residence
South:	Alley (gravel)
East:	North 2nd Street
West:	Single-family residence

2.2 Existing Facilities and Structures

Primary Structure:

Type:	Single-story residence
Size:	Approximately 1,682 sf
Construction Date:	1944
Construction:	Wood-frame
Foundation:	Concrete stemwall on spread footing
Footing Depth:	Approximately 64" to bottom of footing from grade
Basement:	Yes (full)
Crawl Space:	None
Condition:	Good

Other Structures:

Type:	Shed II
Size:	Approximately 99 sf
Construction:	Wood-frame
Foundation:	None
Condition:	Good

Type:	Shed I
Size:	Approximately 16 sf
Construction:	Wood-frame
Foundation:	None
Condition:	Good

General Remarks:

The front and back yards are well landscaped. 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-06141-RS on May 13, 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 historical information from the files of the Colorado Department of Health (CDH) and the inclusion data from Oak Ridge National Laboratory (ORNL) was conducted. These records indicate contamination associated with the city sidewalk east of the primary structure along North 2nd Street.

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: 14 to 17 uR/h
Highest Outside Gamma Reading (HOG): 41 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: 14 to 16 uR/h
Highest Inside Gamma Reading (HIG): 16 uR/h

Interior gamma exposure-rate measurements are summarized in Appendix Table 3.2. Appendix Figure 3.2 shows interior exposure rates and locations of these measurements.

3.3 Boreholes, Soil Samples, and Other Measurements

Areas which displayed elevated gamma levels were further investigated; the sample locations for these investigations are shown in Appendix Figure 3.3. 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 additional RDC measurements were taken by Bendix.

3.5 Extent of Contamination

Appendix Figure 3.4 shows the identified area and estimated depth of contamination on this property, based on assessments of all measurements taken. As noted in this figure, the area recommended for remedial action that contains identified residual radioactive materials is:

(AREA A) The city sidewalk and underlying soil along North 2nd Street are contaminated. The total depth of contamination is 12 inches (approximately 259 sf).

4.0 RECOMMENDED REMEDIAL ACTION

4.1 Decontamination and Restoration

The recommended remedial action for this property, DOE ID No. GJ-06141-RS, includes removal of all areas identified as containing radioactive material (as discussed in Section 3.5 and shown in Appendix Figure 3.4) 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 \$1,632.

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 Office, 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	Interior Gamma Exposure Rates
Figure 3.3	Exterior Sample Locations
Figure 3.4	Estimated Extent of Contamination

Official Survey Report

Exterior Gamma Scan Field Map

Team Leader Notes

Deconvolution Graphs (Apparent Radium-226 Concentration)

Radium Concentrations at Exterior Locations

DOE ID #GJ-06141-RS

621 North 2nd Street

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	170270	03	TC	3.0		*	Background DC = 0 inches
		06	BH	3.3	<1.0	*	
		09	TC	3.6		*	
		12	BH	3.8	<1.0	*	
		15	TC	4.0		*	
		18	BH	4.0	<1.0	*	
		21	TC	4.0		*	
		24	BH	4.0	1.0	*	
		27	TC	3.9		*	
		30	BH	4.0	<1.0	*	
		33	TC	3.8		*	
2	199264	00	DS	1.4		*	Gas line
		16	DS	1.1		*	
3	199273	03	TC	3.0		*	Sewer line West side of primary structure DC = 0 inches
		06	TC	3.3		*	
		09	TC	3.4		*	
		12	TC	3.5		*	
		15	TC	3.6		*	
		18	TC	3.6		*	
		21	TC	3.7		*	
		24	TC	3.7		*	
		27	TC	3.7		*	
		30	TC	3.7		*	
		33	TC	3.7		*	
		36	TC	3.7		*	
		39	TC	3.7		*	
		42	TC	3.7		*	
		45	TC	3.8		*	
		48	TC	3.8		*	
		51	TC	3.9		*	
		54	TC	3.9		*	
		57	TC	3.8		*	
		60	TC	3.9		*	
		63	TC	3.9		*	
		66	TC	3.9		*	
		69	TC	3.9		*	
		72	TC	3.9		*	
		75	TC	4.0		*	
		78	TC	4.0		*	
		81	TC	3.9		*	
		84	TC	3.9		*	
		87	TC	3.8		*	

Radium Concentrations at Exterior Locations

DOE ID #GJ-06141-RS

621 North 2nd Street

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.		
3	199273	90	TC	3.9		*	
		93	TC	3.9		*	
		96	TC	3.9		*	
4	220254	00	DS	<1.0		*	On steps
5	229260	00	DS	<1.0		*	On concrete next to primary structure
6	229281	03	TC	3.1		*	North of primary structure
		06	TC	3.4		*	
		09	TC	3.5		*	
		12	TC	3.6		*	DC = 0 inches
		15	TC	3.6		*	
		18	TC	3.7		*	
		21	TC	3.8		*	
		24	TC	3.8		*	
		27	TC	3.9		*	
		30	TC	3.9		*	
		33	TC	4.0		*	
		36	TC	4.0		*	
		39	TC	4.1		*	
		42	TC	4.0		*	
		45	TC	4.1		*	
		48	TC	4.2		*	
		51	TC	4.1		*	
		54	TC	4.2		*	
		57	TC	4.2		*	
		60	TC	4.2		*	
		63	TC	4.2		*	
		66	TC	4.2		*	
		69	TC	4.2		*	
7	251243	00	DS	<1.0		*	By alley
		06	DS	<1.0		*	
		12	DS	<1.0		*	
8	245270	00	DS	7.1		*	Adjacent to front sidewalk DC = 12 inches
		06	DS	5.1		*	
		12	DS	2.8		*	
		15	DS	2.4		*	

Radium Concentrations at Exterior Locations

DOE ID #GJ-06141-RS

621 North 2nd Street

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.		
9	248265	00-04	SS			8.8	
		04-10	SS			170.6	
		03	TC	36.3		*	Sidewalk, east side of primary structure
		06	BH	42.0	46.6	*	
		09	TC	27.1		*	
		12	BH	16.7	17.8	*	
		15	TC	10.0		*	
		18	BH	7.7	6.9	*	DC = 12 inches Based on all available data
		21	TC	6.6		*	
		24	BH	5.8	3.2	*	
		27	TC	5.5		*	
		30	BH	5.2	3.2	*	
		33	TC	5.1		*	
		36	BH	5.0	2.2	*	
		39	TC	4.9		*	
		42	BH	4.9	2.8	*	
		45	TC	4.8		*	
		48	BH	4.8	2.2	*	
		51	TC	4.6		*	
		54	BH	4.6	1.9	*	
		57	TC	4.5		*	
		60	BH	4.3	2.1	*	
		63	TC	4.2		*	

Measurement GB = GAD-6 Borehole
 Types: 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 = 05-13-85
 Team Leader = JD

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)
ROOM A	01	14-14	14	01	14-14	14
ROOM B	04	14-15	15	04	14-15	15
ROOM C	05	14-16	15	05	15-16	16
ROOM D	05	15-16	15	05	15-16	16
ROOM E	03	15-15	15	03	15-15	15
SHED 1	01	15-15	15	01	15-15	15
SHED 2	03	15-16	16	03	16-16	16

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* Exposure Rates and Room Locations Shown in Appendix Figure 3.2

Table 4.1
Area and Volume Calculations
DOE ID No. GJ-06141-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					
A	5 x 50 =	250			
	3 x 3 =	9			
		<u>259</u>	x 0.3 =	<u>78</u>	
	Volume of Concrete			= 78 =	78/27 = 3
Contaminated Fill					
A	5 x 50 =	250			
	3 x 3 =	9			
		<u>259</u>	x 0.7 =	<u>181</u>	
	Volume of Fill			= 181 =	181/27 = 7
	TOTAL VOLUME - EXTERIOR				<u>10</u>

See Appendix Figure 3.4 For Areas

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Table 4.2
Estimated Cost of Decontamination and Restoration
DOE ID No. GJ-06141-RS

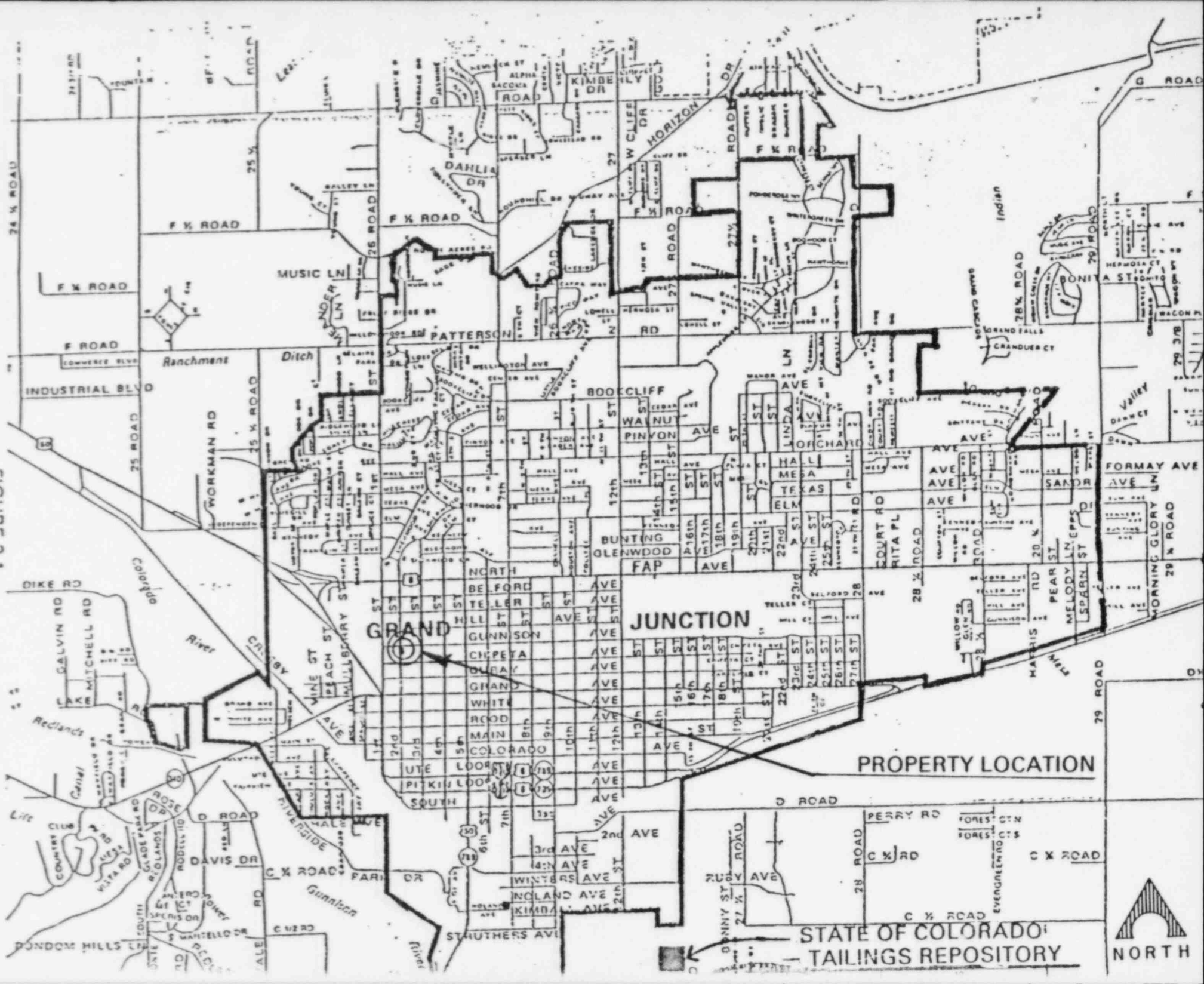
Page 1 of 1

Remove identified residual radioactive material 7 cy @ \$14.50/cy (machine-open)	\$	102
Remove/replace concrete 259 sf @ \$3/sf		777
Replace areas with compacted roadbase 7 cy @ \$11.50/cy		81
<hr/>		
TOTAL EXTERIOR	\$	960
TOTAL INTERIOR		0
ACCESS CONTROL		100
<hr/>		
SUBTOTAL	\$	1,060
CONTINGENCY @ 10%		106
<hr/>		
SUBTOTAL	\$	1,166
CONTRACTOR OVERHEAD & PROFIT @ 40%		466
<hr/>		
GRAND TOTAL	\$	1,632

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FIGURE 2.1
VICINITY MAP



STATE OF COLORADO
TAILINGS REPOSITORY



THE SOUTH 50.5 FEET OF LOTS 9 THROUGH 12 BLOCK 55,
CITY OF GRAND JUNCTION, COLORADO.

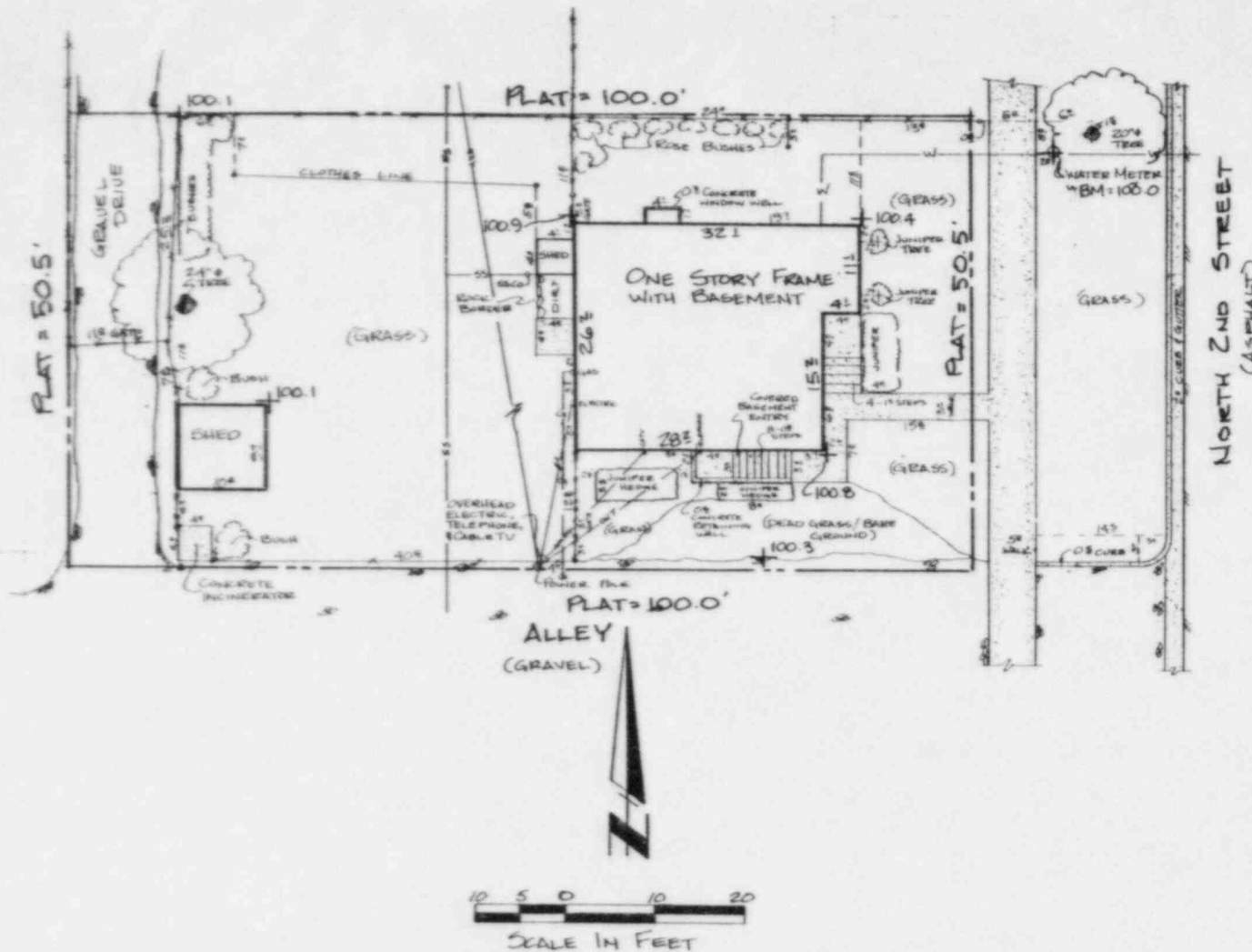

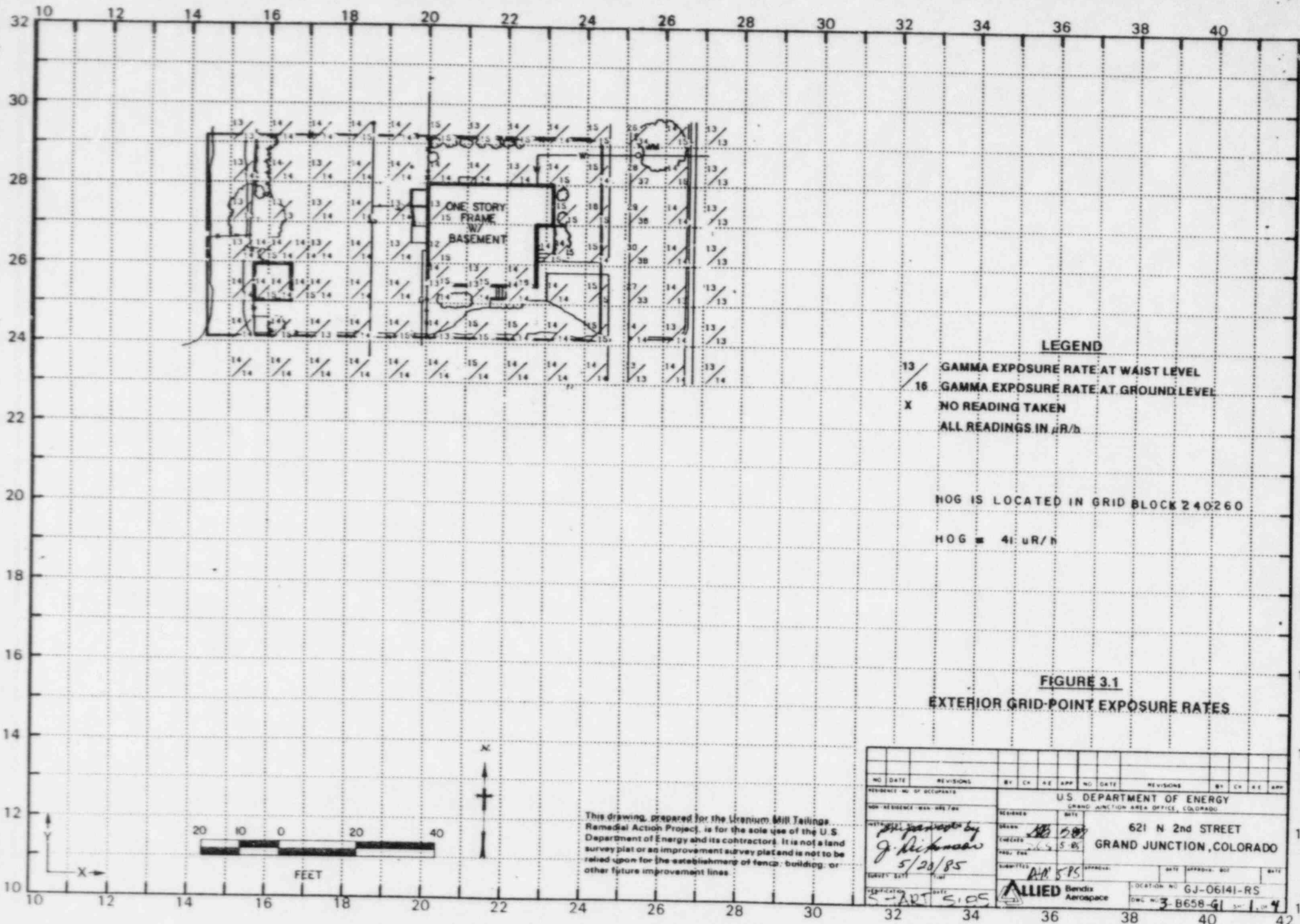
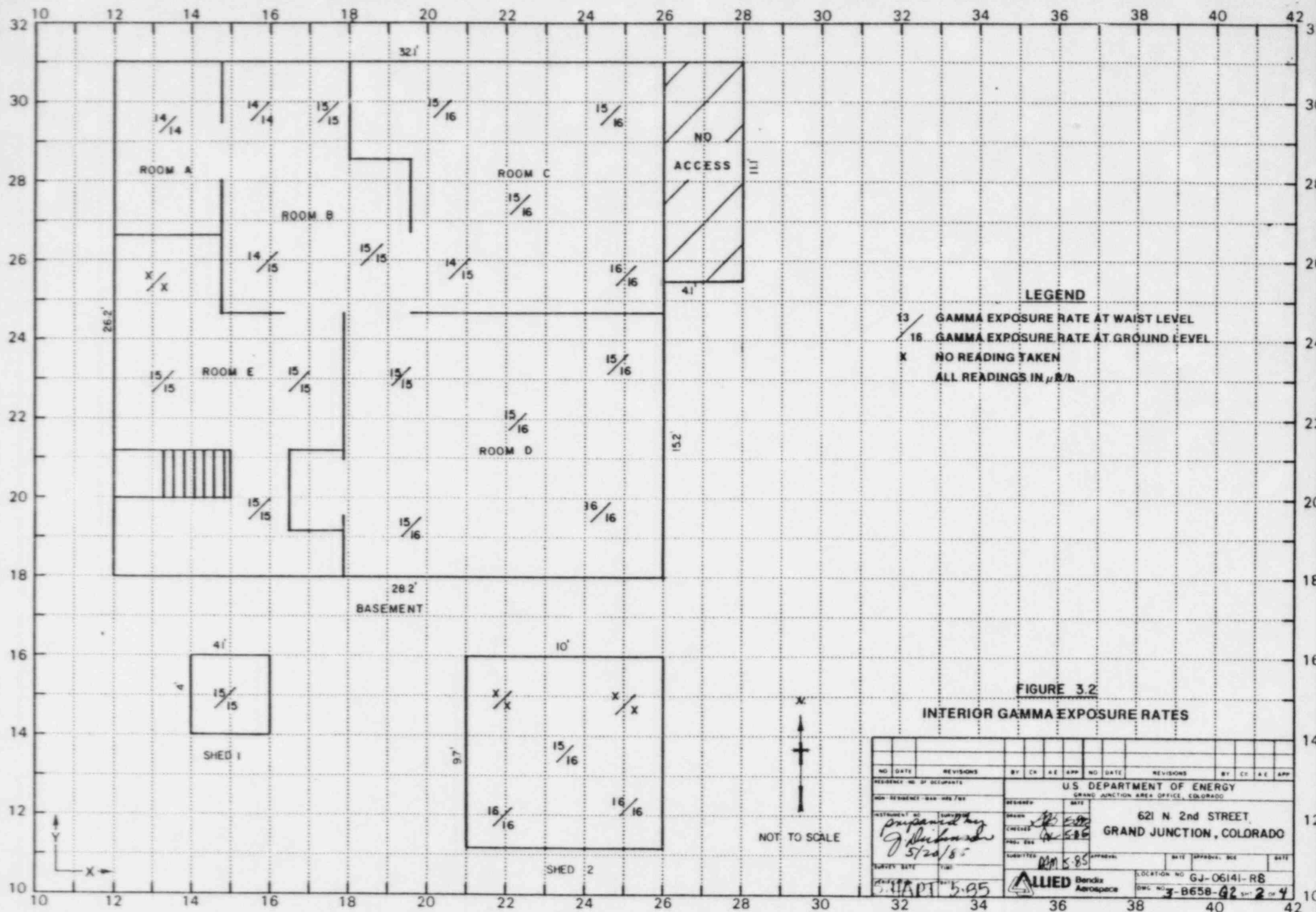


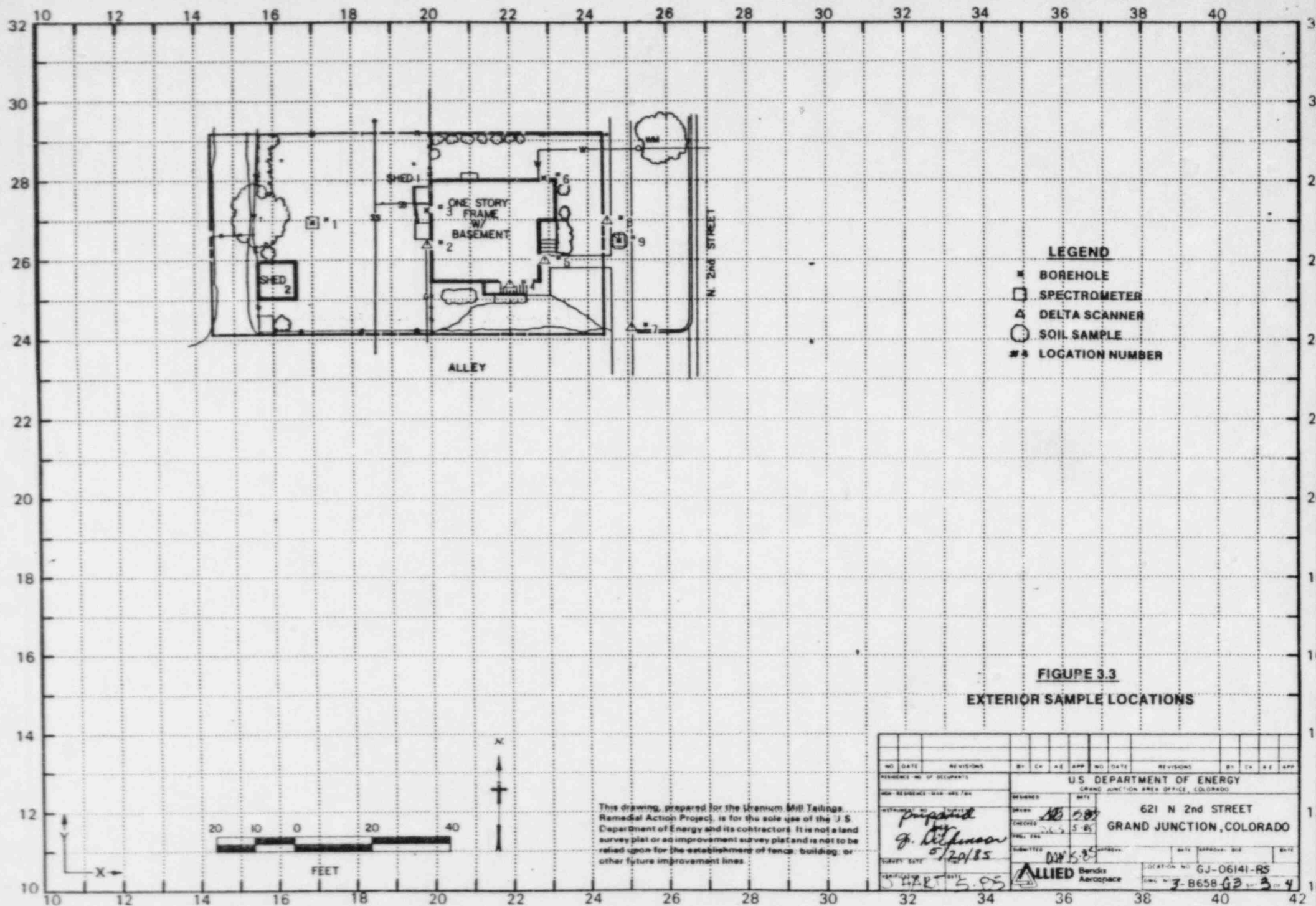
FIGURE 2.2 SITE PLAN

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.

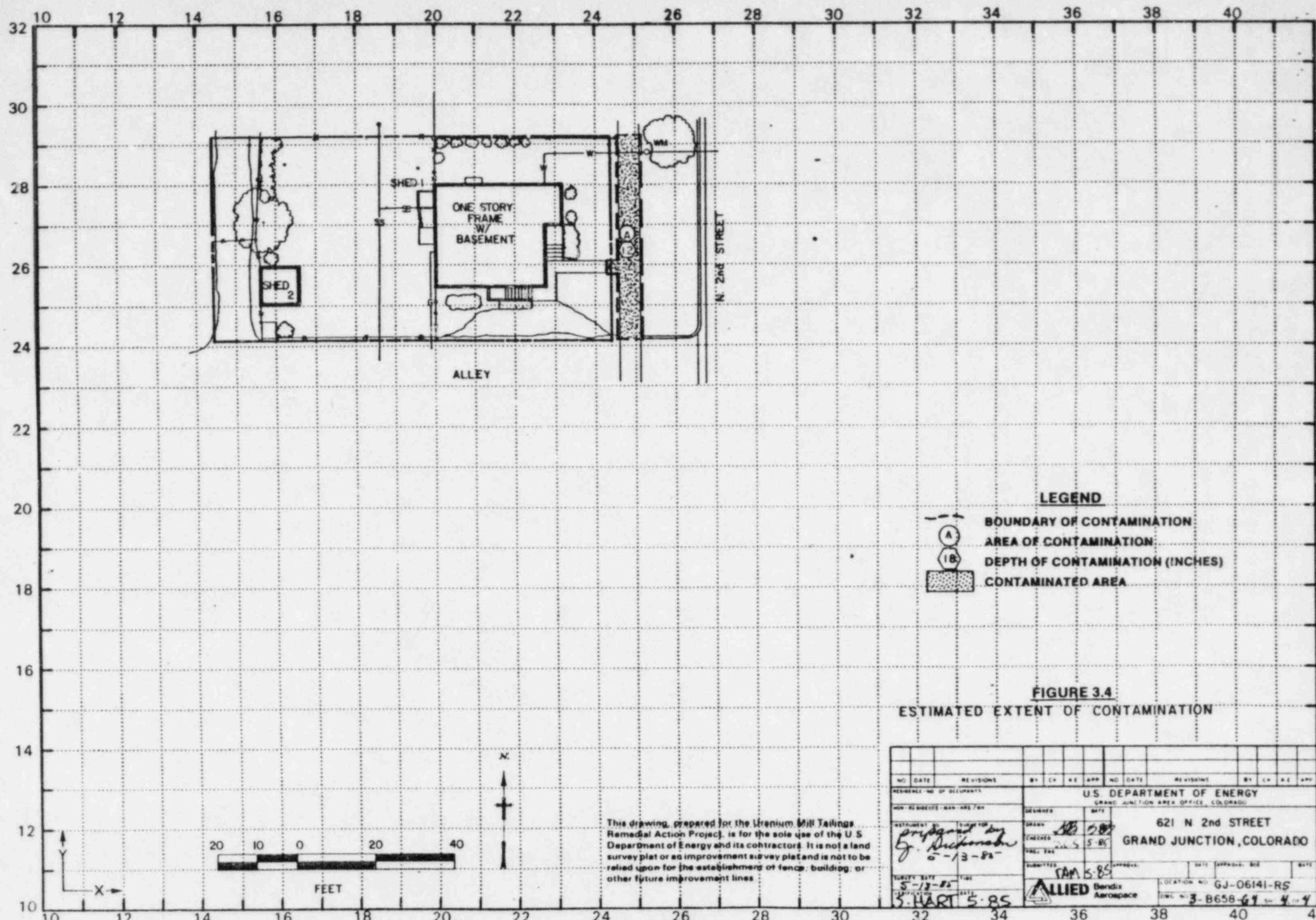
U.S. DEPARTMENT OF ENERGY		DOE ID NO.
GRAND JUNCTION PROJECT OFFICE COLORADO		GJ06141RS
ADDRESS 621 NORTH 2nd STREET		
GRAND JUNCTION, COLORADO		
SURV WHL/5-7-85	DRAFT RSK/5-8-85	Bandco Field Engineering Corporation Grand Junction Operations
DRAWING NO. 3-C658-F1	CK WCF/5-8-85	
		SHEET 1 OF 1







NO. DATE		REVISIONS		BY	CHK	A.E.	APP.	NO. DATE		REVISIONS		BY	CHK	A.E.	APP.
<p>U.S. DEPARTMENT OF ENERGY GRAND JUNCTION AREA OFFICE, COLORADO</p> <p>621 N 2nd STREET GRAND JUNCTION, COLORADO</p> <p>PROJECT NO. 621-001 CHECKED BY 5-85 DATE 5/20/85 DRAWN BY J. Hart DATE 5-85 APPROVED BY [Signature] DATE 5-85 ALLIED Services Aerospace LOCATION NO. GJ-06141-R5 DWG. NO. 3-B658-G3-3-4</p>															



LEGEND

- BOUNDARY OF CONTAMINATION
- AREA OF CONTAMINATION
- DEPTH OF CONTAMINATION (INCHES)
- CONTAMINATED AREA

FIGURE 3.4

ESTIMATED EXTENT OF CONTAMINATION

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 so improvement survey plat and is not to be relied upon for the establishment of fence, building, or other future improvement lines.

NO. DATE REVISIONS		BY CH AE APP NO. DATE REVISIONS		BY CH AE APP	
RESUBMIT NO. OF OCCUPANTS		U.S. DEPARTMENT OF ENERGY			
NON-REBUILD - NON-REB / NON		GRAND JUNCTION AREA OFFICE, COLORADO			
DESIGNED		DATE		621 N 2nd STREET	
CHECKED		DATE		GRAND JUNCTION, COLORADO	
DRAWN		DATE			
SUBMITTER		DATE		APPROVED: DATE	
TURKEY SITE		DATE		APPROVED: DATE	
5-13-85		5-85		5-85	
3-HART		5-85		5-85	
ALLIED		Bendix Aerospace		LOCATION NO. GJ-06141-RS	
				DOW. N. 3-B658-69-4-4	

3/85

DOE ID NO. GJ-06141-RS

Date May 15, 1985

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

Official Survey Report

Property Address 621 North 2nd Street, Grand Junction, Colorado

Property Owner M.L. McNicol

Address of Owner (if different from above) _____

Report Prepared By John Dickerson

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/CDH

J. Themelis, Mgr. UMTRA Proj. Off.

HIG = 16 uR/h
HOG = 41 uR/h

ALLIED Bendix
Aerospace

Bendix Field Engineering Corporation
Grand Junction Operations
Grand Junction, Colorado 81501

DATE: May 15, 1985

TO: Files

FROM: John Dickerson ^P

SUBJECT: Team Leader Notes - GJ-06141-RS

Address: 621 North 2nd

Owner: M.L. McNicol

Team Members

J. Dickerson (Team Leader)
M. Dexter
H. Mattison
R. Wilkins

R. Schouten
V. Young
R. Herman
A. Quintana

Instruments

See Equipment Summary Sheet.

Team members cored and augered in the city sidewalk with visible sand/tailings underlying concrete. Deltas were taken beside the sidewalk.

Background hole located in backyard.

Utilities investigated:

Sewer line (by borehole)
Water line (by borehole)
Gas line (by depth deltas)

Team Leader Notes
John Dickerson
GJ-06141-RS
May 15, 1985
Page 2

Anomolously high grid point and scan readings investigated with deltas next to the house.

The tenant who lives in the basement has not yet been notified of our need to survey the basement and the homeowner (Mrs. McNicol) wants us to wait until she talks with her tenant.

I will contact Mrs. McNicol Tuesday, 14 May 1985, to arrange a time for interior survey.

Property was picked up, holes were backfilled, and the sidewalk was patched.

Team members were frisked, no contamination.

Date: May 15, 1985

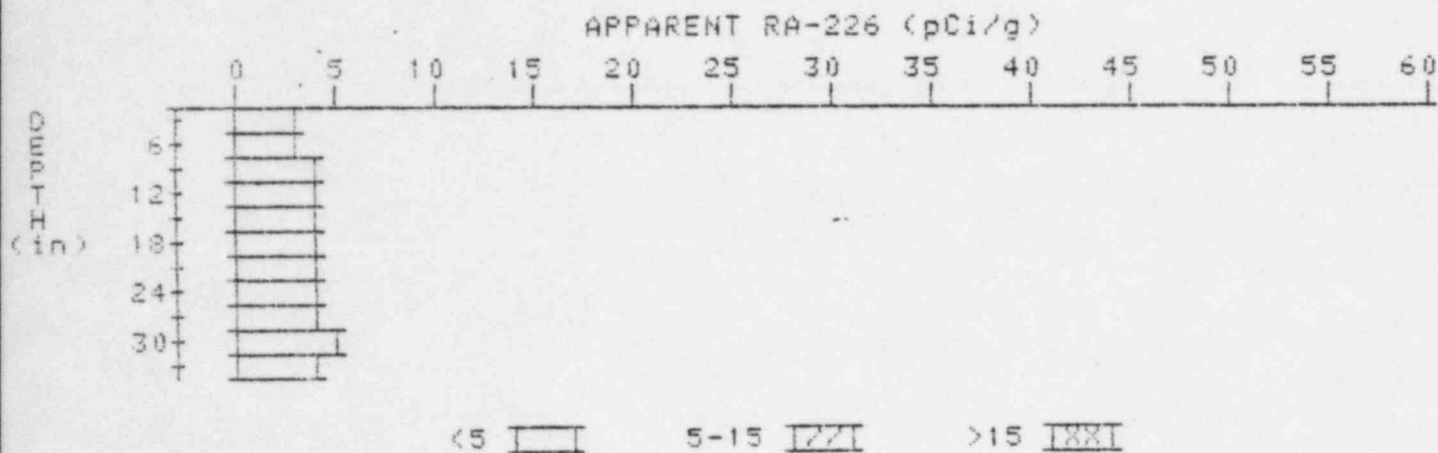
An interior scan was accomplished by a gamma survey with waist and ground level readings.

No anomalous readings were discovered in the house (basement), Shed 1, or Shed 2. Shed 1 was surveyed 13 May 1985.

APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

1

PROPERTY NUMBER: GJ-06141-RS
HOLE NUMBER: 1
LOCATION: 170270



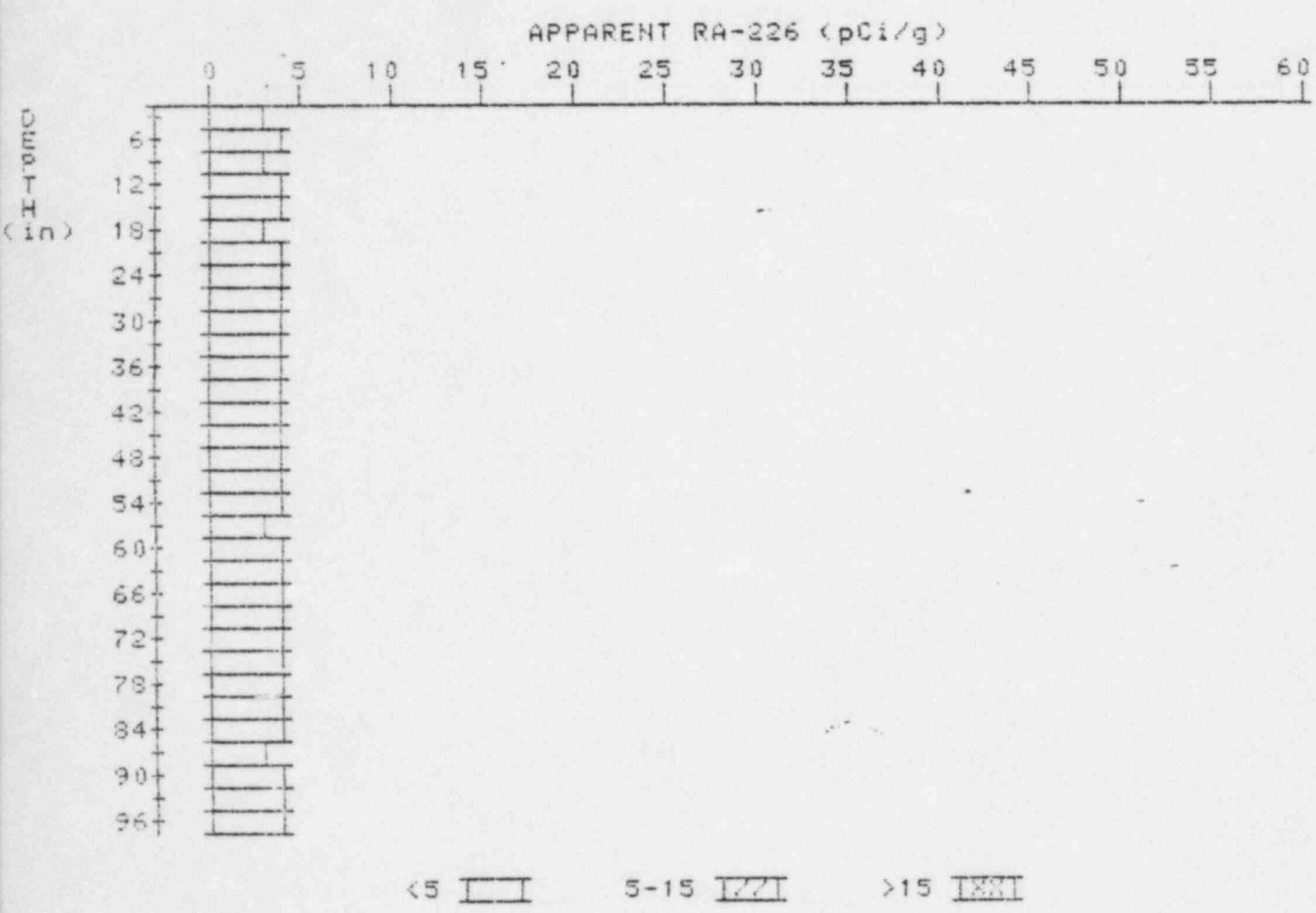
Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.0	3.0
6	3.3	3.3
9	3.6	3.8
12	3.8	3.8
15	4.0	4.4
18	4.0	4.0
21	4.0	4.0
24	4.0	4.2
27	3.9	3.5
30	4.0	4.5
33	3.8	3.8

APPARENT RADIUM-226 CONCENTRATION

DECONVOLUTION GRAPH

3

PROPERTY NUMBER: GJ-06141-RS
HOLE NUMBER: 3
LOCATION: 199273



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.0	3.0
6	3.3	3.7
9	3.4	2.4
12	3.5	3.5
15	3.6	3.6
18	3.6	3.4
21	3.7	3.9
24	3.7	3.7
27	3.7	3.7

30
33
36
39
42
45
48
51
54
57
60
63
66
69
72
75
78
81
84
87
90
93
96

3.7
3.7
3.7
3.7
3.7
3.3
3.8
3.9
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3.8
3.9
3.9
3.9
3.9
3.9
4.0
4.0
3.9
3.9
3.8
3.9
3.9
3.9

3.7
3.7
3.7
3.7
3.5
4.0
3.6
4.1
4.1
3.4
4.1
3.9
3.9
3.9
3.7
4.2
4.2
3.7
4.1
3.4
4.1
3.9
3.9

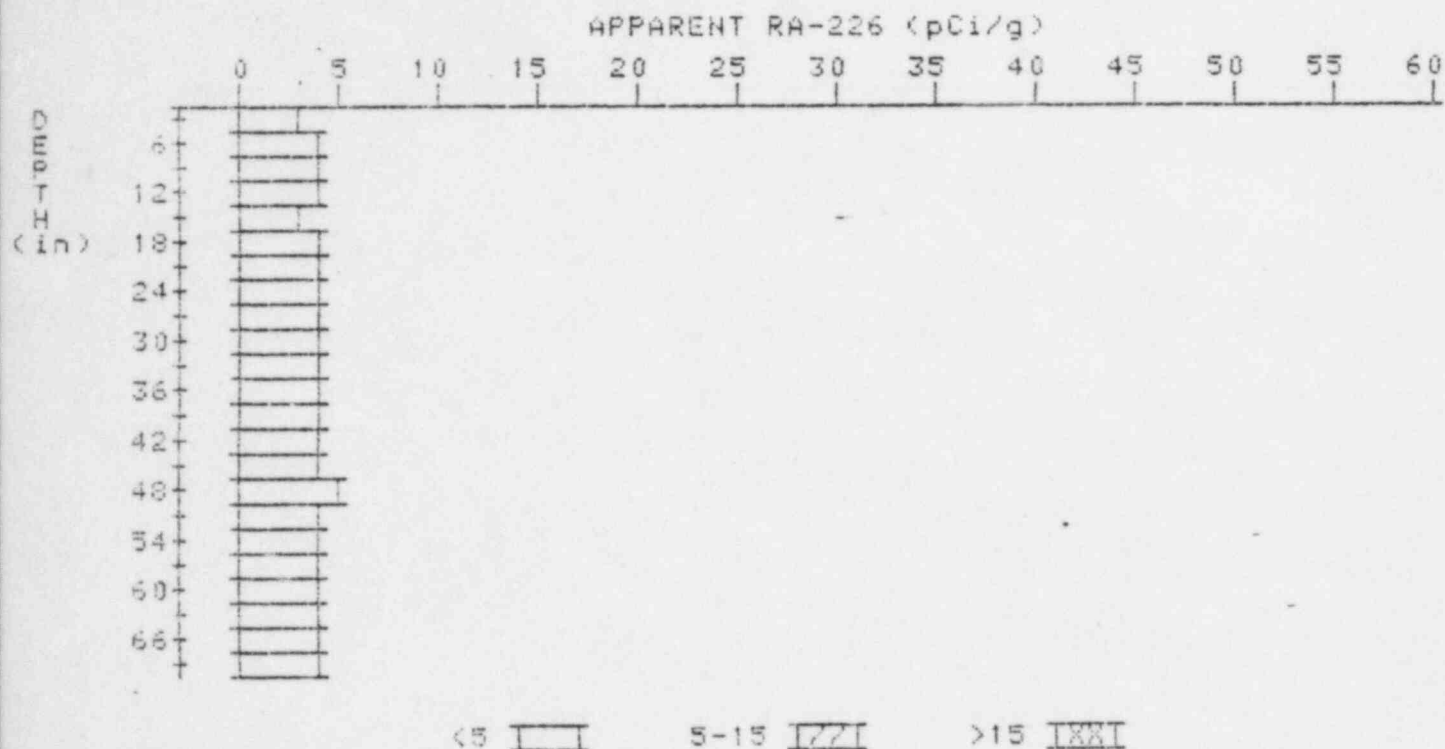
APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

6

PROPERTY NUMBER: GJ-06141-RS

HOLE NUMBER: 6

LOCATION: 229281



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.1	3.1
6	3.4	3.8
9	3.5	3.5
12	3.6	3.8
15	3.6	3.4
18	3.7	3.7
21	3.8	4.0
24	3.8	3.6
27	3.9	4.1
30	3.9	3.7
33	4.0	4.2
36	4.0	3.8
39	4.1	4.5
42	4.0	3.6
45	4.1	4.1

48
51
54
57
60
63
66
69

4.2
4.1
4.2
4.2
4.2
4.2
4.2
4.2

4.6
3.7
4.4
4.2
4.2
4.2
4.2
4.2

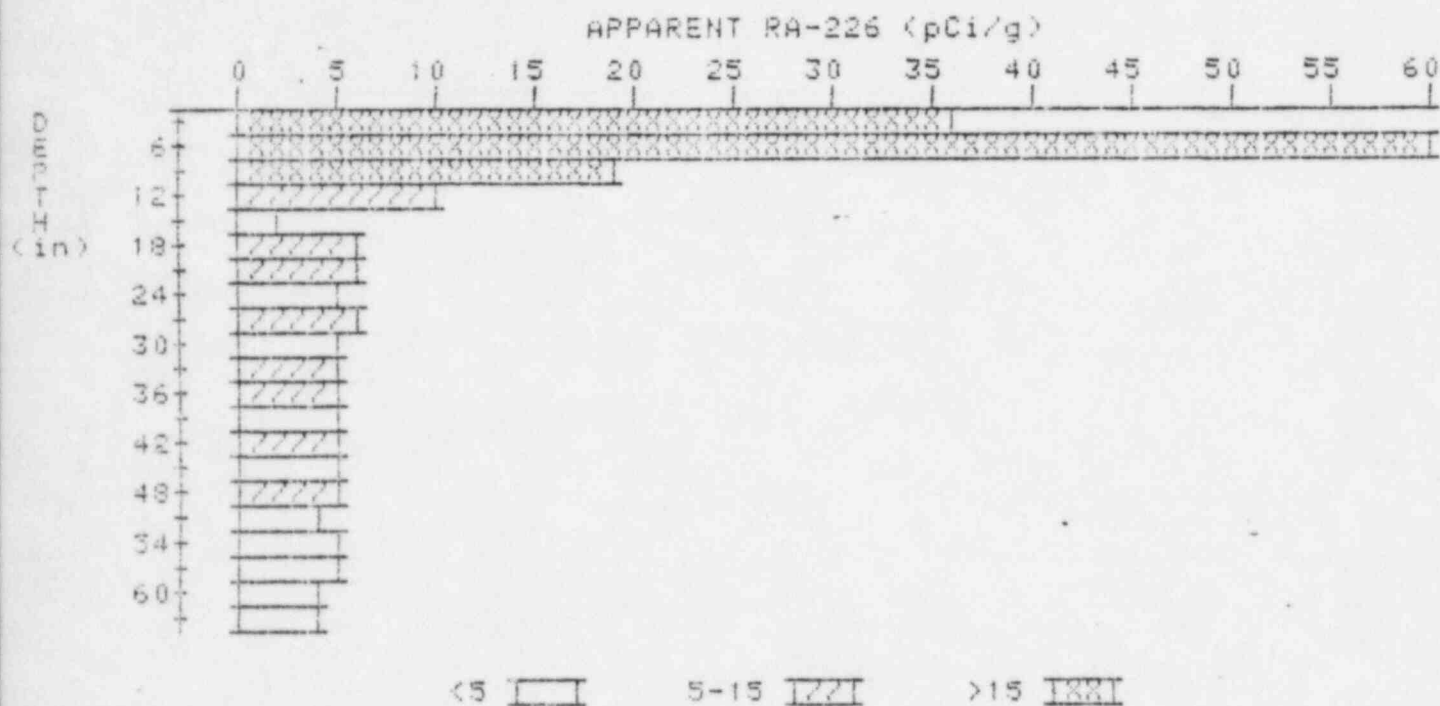
APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

9

PROPERTY NUMBER: GJ-06141-RS

HOLE NUMBER: 9

LOCATION: 248263



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	36.3	36.3
6	42.0	78.6
9	27.1	19.1
12	16.7	10.1
15	10.0	2.2
18	7.7	5.6
21	6.6	6.1
24	5.8	4.9
27	5.5	5.5
30	5.2	4.8
33	5.1	5.1
36	5.0	5.0
39	4.9	4.7
42	4.9	5.1
45	4.8	4.6
48	4.8	5.2
51	4.6	4.2

54
57
60
63

4.6
4.5
4.3
4.2

4.8
4.7
4.1
4.2