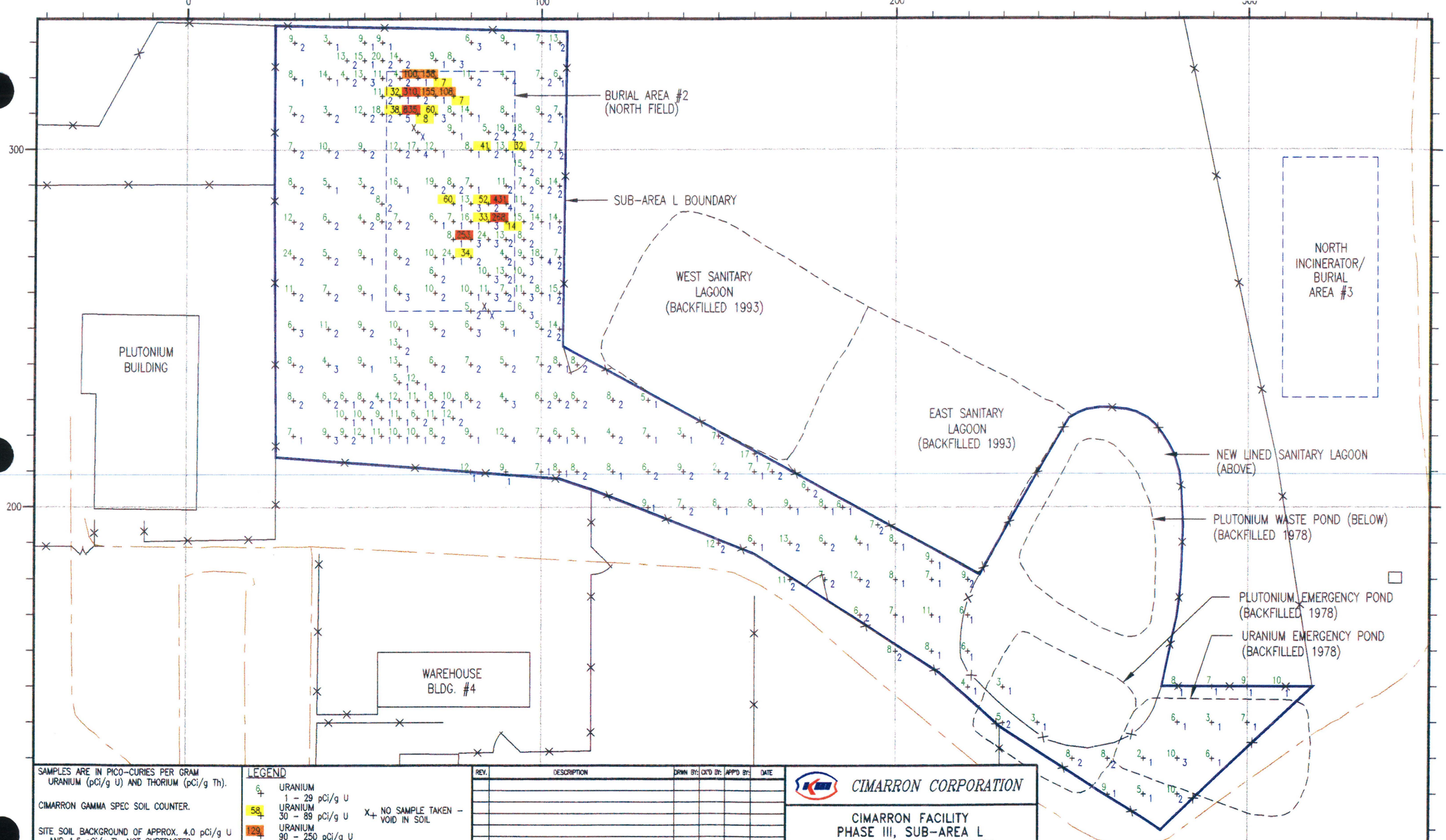


SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN IN 1990, 1991 & 1994. DATA COMBINED AND GRID SIZE VARIES.

LEGEND

- 6 URANIUM 1 – 29 pCi/g U
- 58 URANIUM 30 – 89 pCi/g U
- 129 URANIUM 90 – 250 pCi/g U
- 524 URANIUM > 251 pCi/g U
- 2 THORIUM 1 – 5 pCi/g Th
- 15 THORIUM > 5 pCi/g Th
- X NO SAMPLE TAKEN – VOID IN SOIL

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHK'D. BY	DATE	APP'D. BY	SCALE:
JE	4/24/96				AS SHOWN

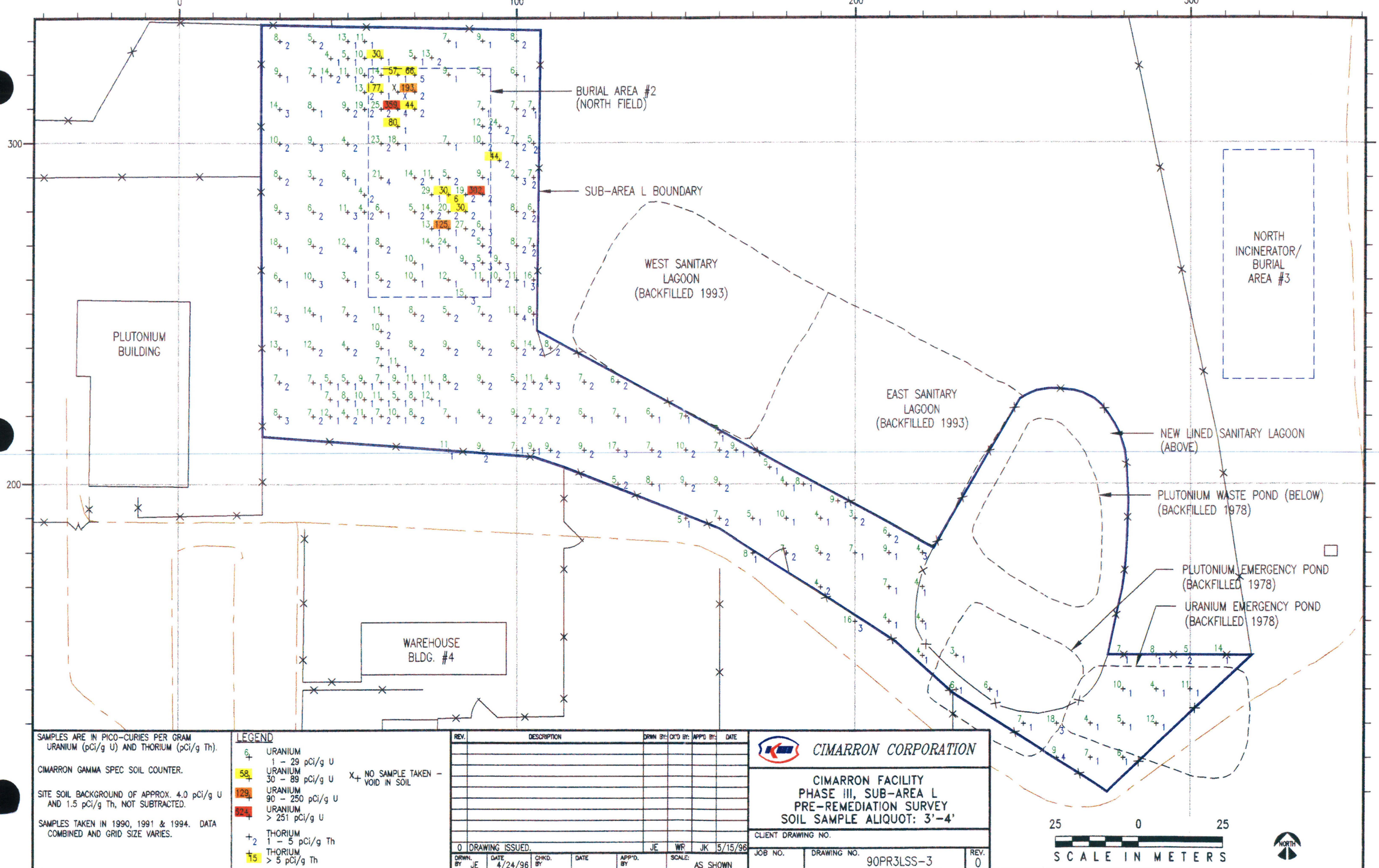
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
PRE-REMEDIATION SURVEY
SOIL SAMPLE ALIQUOT: 2'-3'

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	90PR3LSS-2	0

M:\CIMARRON\BURIAL2\90PR3LSS



SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN IN 1990, 1991 & 1994. DATA COMBINED AND GRID SIZE VARIES.

LEGEND

- 6 — URANIUM 1 – 29 pCi/g U
- 58 — URANIUM 30 – 89 pCi/g U
- 129 — URANIUM 90 – 250 pCi/g U
- 324 — URANIUM > 251 pCi/g U
- 2 — THORIUM 1 – 5 pCi/g Th
- 15 — THORIUM > 5 pCi/g Th
- X — NO SAMPLE TAKEN – VOID IN SOIL

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHK'D. BY	DATE	APP'D. BY	SCALE:
JE	4/24/96				AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
PRE-REMEDIATION SURVEY
SOIL SAMPLE ALIQUOT: 3'-4'

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	90PR3LSS-3	0

25 0 25
SCALE IN METERS

NORTH

M:\CIMARRON\BURIAL2\90PR3LSS

0 100 200 300

300

200

BURIAL AREA #2
(NORTH FIELD)

SUB-AREA L BOUNDARY

WEST SANITARY
LAGOON
(BACKFILLED 1993)

EAST SANITARY
LAGOON
(BACKFILLED 1993)

NORTH
INCINERATOR/
BURIAL
AREA #3

PLUTONIUM
BUILDING

WAREHOUSE
BLDG. #4

NEW LINED SANITARY LAGOON
(ABOVE)

PLUTONIUM WASTE POND (BELOW)
(BACKFILLED 1978)

PLUTONIUM EMERGENCY POND
(BACKFILLED 1978)

URANIUM EMERGENCY POND
(BACKFILLED 1978)

SAMPLES ARE IN PICO-CURIES PER GRAM
URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U
AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN IN 1990, 1991 & 1994. DATA
COMBINED AND GRID SIZE VARIES.

LEGEND

- URANIUM 1 – 29 pCi/g U
- URANIUM 30 – 89 pCi/g U
- URANIUM 90 – 250 pCi/g U
- URANIUM > 251 pCi/g U
- THORIUM 1 – 5 pCi/g Th
- THORIUM > 5 pCi/g Th

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHK'D. BY	DATE	APP'D. BY	SCALE:
JE	4/24/96				AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
PRE-REMEDIATION SURVEY
SOIL SAMPLE ALIQUOT: 4'-5'

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	90PR3LSS-4	0

25 0 25
SCALE IN METERS

NORTH

M:\CIMARRON\BURIAL2\90PR3LSS

0 100 200 300

300

200

BURIAL AREA #2
(NORTH FIELD)

SUB-AREA L BOUNDARY

WEST SANITARY
LAGOON
(BACKFILLED 1993)

EAST SANITARY
LAGOON
(BACKFILLED 1993)

NORTH
INCINERATOR/
BURIAL
AREA #3

PLUTONIUM
BUILDING

WAREHOUSE
BLDG. #4

NEW LINED SANITARY LAGOON
(ABOVE)

PLUTONIUM WASTE POND (BELOW)
(BACKFILLED 1978)

PLUTONIUM EMERGENCY POND
(BACKFILLED 1978)

URANIUM EMERGENCY POND
(BACKFILLED 1978)

157, 214, 271, 74, 18, 8, 106

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN IN 1990, 1991 & 1994. DATA COMBINED AND GRID SIZE VARIES.

LEGEND

- 6 URANIUM 1 – 29 pCi/g U
- 58 URANIUM 30 – 89 pCi/g U
- 129 URANIUM 90 – 250 pCi/g U
- 524 URANIUM > 251 pCi/g U
- 2 THORIUM 1 – 5 pCi/g Th
- 15 THORIUM > 5 pCi/g Th
- NO SAMPLE TAKEN – HIT ROCK OR METAL

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	4/24/96				AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
PRE-REMEDIATION SURVEY
SOIL SAMPLE ALIQUOT: 5'-6'

CLIENT DRAWING NO.

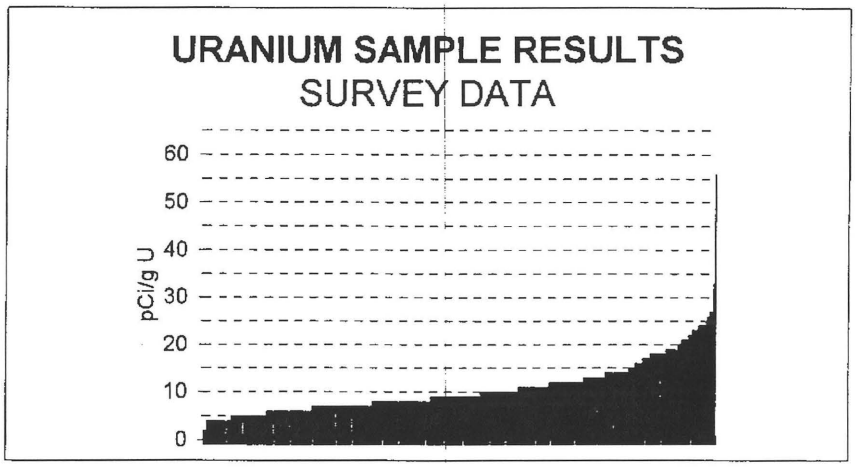
JOB NO.	DRAWING NO.	REV.
	90PR3LSS-5	0

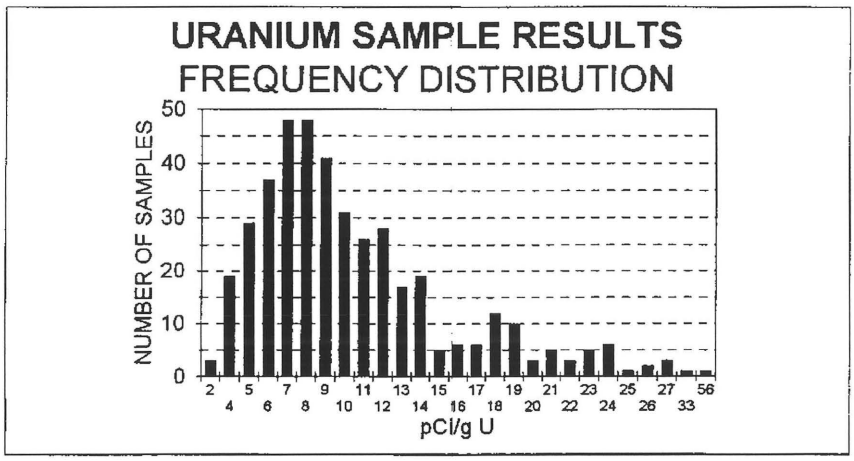
25 0 25
SCALE IN METERS

NORTH

M:\CIMARRON\BURIAL2\90PR3LSS

PHASE III - AREA L
BURIAL GROUND #2
CIMARRON SOIL COUNTER
TOTAL URANIUM SOIL SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
NOVEMBER 1995

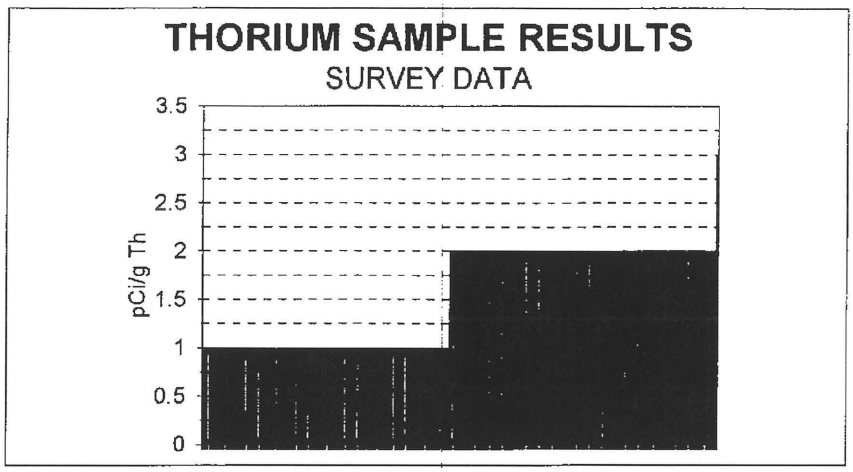


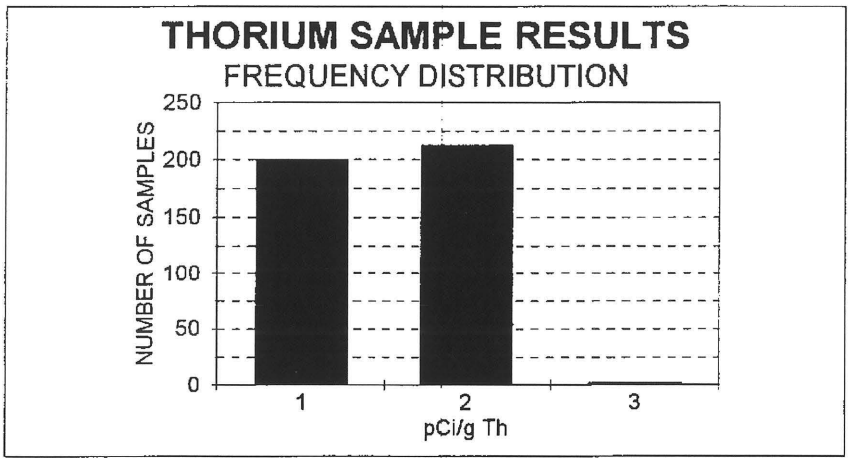


NUMBER OF SAMPLES	415
AVERAGE SAMPLE	11
MINIMUM SAMPLE	2
MAXIMUM SAMPLE	56
STANDARD DEVIATION	6

FILE 3lb2-ura.wb2

PHASE III - AREA L
BURIAL GROUND #2
CIMARRON SOIL COUNTER
THORIUM (NAT) SOIL SAMPLE RESULTS
SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
NOVEMBER 1995

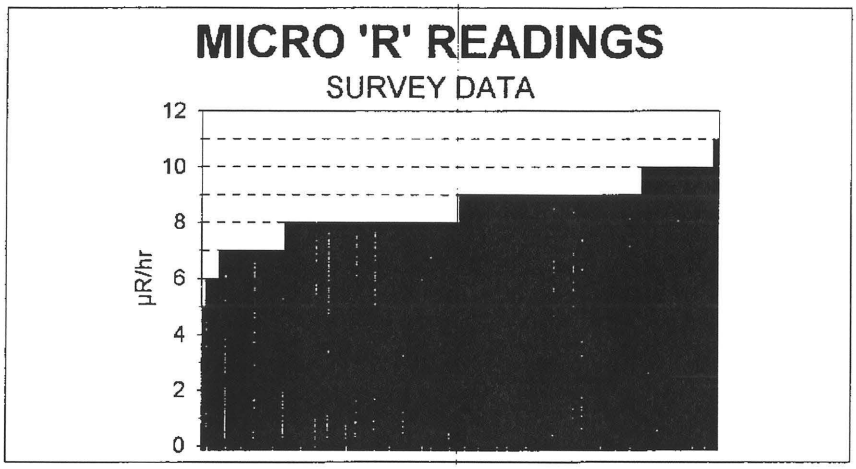


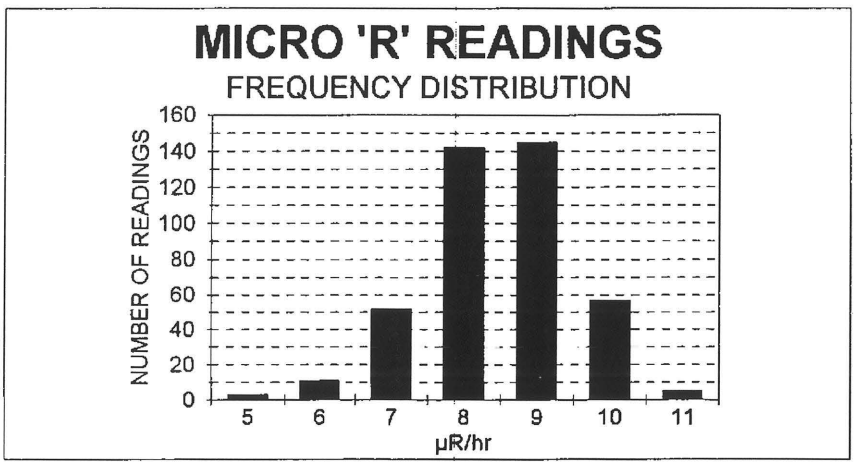


NUMBER OF SAMPLES	415
AVERAGE SAMPLE	2
MINIMUM SAMPLE	1
MAXIMUM SAMPLE	3
STANDARD DEVIATION	1

file 3lb2-tho.wb2

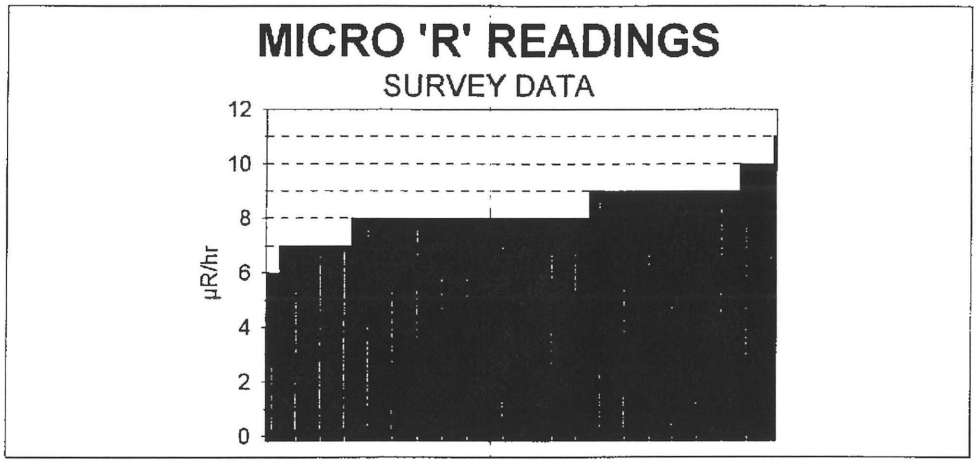
PHASE III - AREA L
BURIAL GROUND #2
CIMARRON SOIL COUNTER
MICRO-R METER READINGS AT SURFACE
LUDLUM MODEL 19 S/N 111299
RESULTS IN µR/hr
NOVEMBER 1995

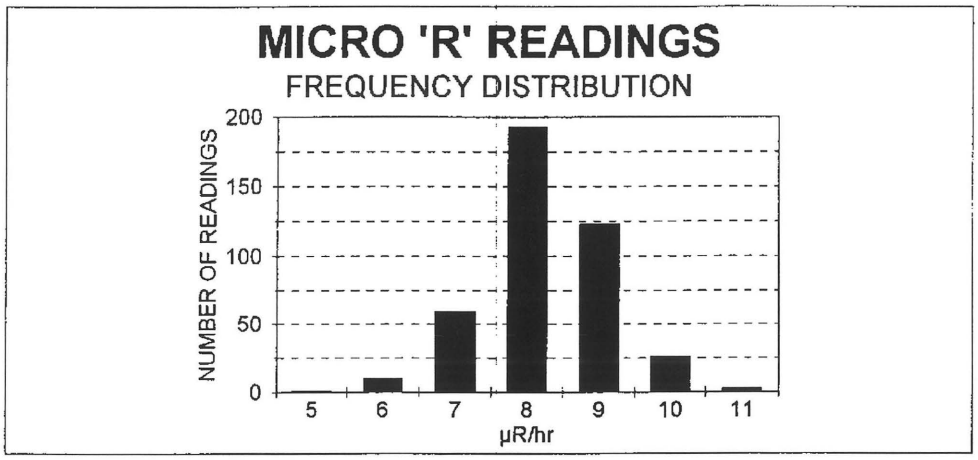




NUMBER OF READINGS	415
AVERAGE READING	8
MINIMUM READING	5
MAXIMUM READING	11
STANDARD DEVIATION	1

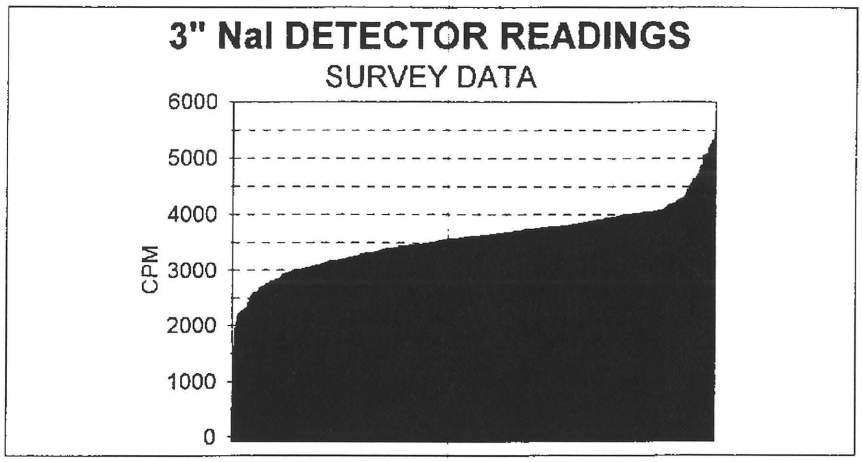
PHASE III - AREA L
BURIAL GROUND #2
CIMARRON SOIL COUNTER
MICRO-R METER READINGS AT ONE METER ABOVE SURFACE
LUDLUM MODEL 19 S/N 111299
RESULTS IN µR/hr
NOVEMBER 1995

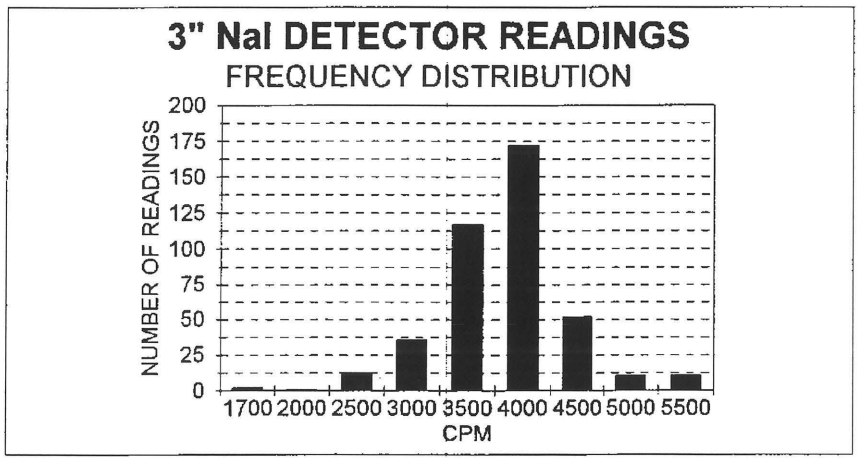




NUMBER OF READINGS	415
AVERAGE READING	8
MINIMUM READING	5
MAXIMUM READING	11
STANDARD DEVIATION	1

PHASE III - AREA L
BURIAL GROUND #2
CIMARRON SOIL COUNTER
GROSS GAMMA READINGS IN CPM
LUDLUM MODEL 2220 S/N 50057
BACKGROUND AVERAGE: 3100 CPM
NOVEMBER 1995





NUMBER OF READINGS	415
AVERAGE READING	3584
MINIMUM READING	1612
MAXIMUM READING	5450
STANDARD DEVIATION	573

CIMARRON CORPORATION - CIMARRON FACILITY **BURIAL GROUND #2**
TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE **(PHASE III - AREA-L)**

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
1	6	-4.54	20.59
2	4	-6.54	42.74
3	6	-4.54	20.59
4	11	0.46	0.21
5	5	-5.54	30.66
6	7	-3.54	12.51
7	5	-5.54	30.66
8	8	-2.54	6.44
9	6	-4.54	20.59
10	6	-4.54	20.59
11	5	-5.54	30.66
12	8	-2.54	6.44
13	8	-2.54	6.44
14	7	-3.54	12.51
15	6	-4.54	20.59
16	4	-6.54	42.74
17	7	-3.54	12.51
18	4	-6.54	42.74
19	7	-3.54	12.51
20	6	-4.54	20.59
21	10	-0.54	0.29
22	8	-2.54	6.44
23	8	-2.54	6.44
24	2	-8.54	72.89
25	7	-3.54	12.51
26	4	-6.54	42.74
27	9	-1.54	2.36
28	7	-3.54	12.51
29	10	-0.54	0.29
30	7	-3.54	12.51
31	7	-3.54	12.51
32	8	-2.54	6.44
33	5	-5.54	30.66
34	8	-2.54	6.44
35	4	-6.54	42.74
36	7	-3.54	12.51
37	9	-1.54	2.36
38	5	-5.54	30.66
39	8	-2.54	6.44
40	7	-3.54	12.51
41	7	-3.54	12.51
42	4	-6.54	42.74
43	9	-1.54	2.36
44	5	-5.54	30.66
45	6	-4.54	20.59
46	9	-1.54	2.36
47	9	-1.54	2.36
48	9	-1.54	2.36
49	7	-3.54	12.51
50	24	13.46	181.24
	455		1137.7987
	568		923.3577
	607		1408.4444
	619		3807.5481
	599		2125.042
	509		1071.7649
	529		1438.271
	132		185.67574
	4373		13153.171
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 415

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)
Sample Mean (N) : 10.54

Standard Deviation (Sd) = SQRT [$(n-N)^2$ ÷ (x - 1)]

Standard Deviation: 5.6
2 Std Deviations: 11.3
Degree of Freedom(df).= (x) - 1 Data listed on Table B-1
(df) = 1.649

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/(x)]

(Aμ) = 10.99 pCi/gU TOTAL U
GUIDELINE VALUE 30 pCi/gU TOTAL U
Acceptable Level: 34.0 pCi/gU TOTAL U
(30 PLUS BACKGROUND)

TABLE B - 1

Factors for Comparision of Survey Data with Guidelines					
(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

For values of Degrees of Freedom not listed:
Interpolate between the listed values.

(df) high value(Z)	Infinite	is (B)	1.645	95%
(df) low value(Y)	400	is (A)	1.649	95%
Desired value(df) (X)	414	is calculated as follow:		
EXP[((Ln(B)-Ln(A)) ÷ (Z-Y)) (X-Y) + Ln(A)]				
The (df) value for (X)	414	1.649	95%	

PERFORMED BY: L. Powell DATE: 5-6-96

REVIEWED BY: W.A. Rogers DATE: 5-6-96

CIMARRON CORPORATION - CIMARRON FACILITY **BURIAL GROUND #2**

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE **(PHASE III - AREA-L)**

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
51	19	8.46	71.62
52	24	13.46	181.24
53	12	1.46	2.14
54	12	1.46	2.14
55	9	-1.54	2.36
56	5	-5.54	30.66
57	8	-2.54	6.44
58	14	3.46	11.99
59	12	1.46	2.14
60	7	-3.54	12.51
61	5	-5.54	30.66
62	5	-5.54	30.66
63	7	-3.54	12.51
64	7	-3.54	12.51
65	7	-3.54	12.51
66	6	-4.54	20.59
67	8	-2.54	6.44
68	8	-2.54	6.44
69	6	-4.54	20.59
70	10	-0.54	0.29
71	6	-4.54	20.59
72	5	-5.54	30.66
73	11	0.46	0.21
74	5	-5.54	30.66
75	6	-4.54	20.59
76	7	-3.54	12.51
77	23	12.46	155.32
78	14	3.46	11.99
79	8	-2.54	6.44
80	8	-2.54	6.44
81	10	-0.54	0.29
82	13	2.46	6.06
83	9	-1.54	2.36
84	4	-6.54	42.74
85	9	-1.54	2.36
86	8	-2.54	6.44
87	5	-5.54	30.66
88	9	-1.54	2.36
89	5	-5.54	30.66
90	7	-3.54	12.51
91	5	-5.54	30.66
92	7	-3.54	12.51
93	9	-1.54	2.36
94	7	-3.54	12.51
95	6	-4.54	20.59
96	8	-2.54	6.44
97	7	-3.54	12.51
98	22	11.46	131.39
99	10	-0.54	0.29
100	11	0.46	0.21
	455		1137.7987
	Sum(n)		$Sum(n-N)^2$

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
101	13	2.46	6.06
102	10	-0.54	0.29
103	13	2.46	6.06
104	21	10.46	109.47
105	9	-1.54	2.36
106	24	13.46	181.24
107	14	3.46	11.99
108	19	8.46	71.62
109	12	1.46	2.14
110	11	0.46	0.21
111	5	-5.54	30.66
112	11	0.46	0.21
113	19	8.46	71.62
114	14	3.46	11.99
115	7	-3.54	12.51
116	7	-3.54	12.51
117	16	5.46	29.84
118	11	0.46	0.21
119	13	2.46	6.06
120	8	-2.54	6.44
121	8	-2.54	6.44
122	13	2.46	6.06
123	10	-0.54	0.29
124	12	1.46	2.14
125	14	3.46	11.99
126	11	0.46	0.21
127	12	1.46	2.14
128	18	7.46	55.69
129	11	0.46	0.21
130	11	0.46	0.21
131	19	8.46	71.62
132	7	-3.54	12.51
133	6	-4.54	20.59
134	9	-1.54	2.36
135	8	-2.54	6.44
136	12	1.46	2.14
137	11	0.46	0.21
138	7	-3.54	12.51
139	12	1.46	2.14
140	7	-3.54	12.51
141	9	-1.54	2.36
142	12	1.46	2.14
143	8	-2.54	6.44
144	9	-1.54	2.36
145	17	6.46	41.77
146	10	-0.54	0.29
147	9	-1.54	2.36
148	5	-5.54	30.66
149	9	-1.54	2.36
150	5	-5.54	30.66
	568		923.3577
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY **BURIAL GROUND #2**

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE **(PHASE III - AREA-L)**

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
151	11	0.46	0.21
152	11	0.46	0.21
153	8	-2.54	6.44
154	10	-0.54	0.29
155	17	6.46	41.77
156	9	-1.54	2.36
157	9	-1.54	2.36
158	5	-5.54	30.66
159	6	-4.54	20.59
160	23	12.46	155.32
161	12	1.46	2.14
162	13	2.46	6.06
163	7	-3.54	12.51
164	6	-4.54	20.59
165	9	-1.54	2.36
166	18	7.46	55.69
167	12	1.46	2.14
168	17	6.46	41.77
169	21	10.46	109.47
170	7	-3.54	12.51
171	8	-2.54	6.44
172	7	-3.54	12.51
173	7	-3.54	12.51
174	18	7.46	55.69
175	9	-1.54	2.36
176	7	-3.54	12.51
177	9	-1.54	2.36
178	18	7.46	55.69
179	18	7.46	55.69
180	12	1.46	2.14
181	8	-2.54	6.44
182	17	6.46	41.77
183	12	1.46	2.14
184	12	1.46	2.14
185	8	-2.54	6.44
186	16	5.46	29.84
187	17	6.46	41.77
188	13	2.46	6.06
189	24	13.46	181.24
190	12	1.46	2.14
191	19	8.46	71.62
192	25	14.46	209.17
193	12	1.46	2.14
194	7	-3.54	12.51
195	6	-4.54	20.59
196	15	4.46	19.92
197	8	-2.54	6.44
198	12	1.46	2.14
199	10	-0.54	0.29
200	10	-0.54	0.29
	607		1408.4444
			Sum(n-N)²

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
201	9	-1.54	2.36
202	4	-6.54	42.74
203	7	-3.54	12.51
204	7	-3.54	12.51
205	7	-3.54	12.51
206	8	-2.54	6.44
207	4	-6.54	42.74
208	26	15.46	239.09
209	7	-3.54	12.51
210	10	-0.54	0.29
211	23	12.46	155.32
212	13	2.46	6.06
213	10	-0.54	0.29
214	10	-0.54	0.29
215	10	-0.54	0.29
216	19	8.46	71.62
217	9	-1.54	2.36
218	12	1.46	2.14
219	11	0.46	0.21
220	11	0.46	0.21
221	15	4.46	19.92
222	5	-5.54	30.66
223	12	1.46	2.14
224	8	-2.54	6.44
225	14	3.46	11.99
226	10	-0.54	0.29
227	8	-2.54	6.44
228	6	-4.54	20.59
229	2	-8.54	72.89
230	10	-0.54	0.29
231	7	-3.54	12.51
232	5	-5.54	30.66
233	22	11.46	131.39
234	21	10.46	109.47
235	14	3.46	11.99
236	27	16.46	271.02
237	18	7.46	55.69
238	56	45.46	2066.85
239	20	9.46	89.54
240	18	7.46	55.69
241	2	-8.54	72.89
242	15	4.46	19.92
243	5	-5.54	30.66
244	14	3.46	11.99
245	6	-4.54	20.59
246	13	2.46	6.06
247	11	0.46	0.21
248	12	1.46	2.14
249	12	1.46	2.14
250	14	3.46	11.99
	619		3807.548
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY
TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

BURIAL GROUND #2
(PHASE III - AREA-L)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
251	8	-2.54	6.44
252	6	-4.54	20.59
253	4	-6.54	42.74
254	7	-3.54	12.51
255	6	-4.54	20.59
256	11	0.46	0.21
257	10	-0.54	0.29
258	14	3.46	11.99
259	33	22.46	504.57
260	26	15.46	239.09
261	4	-6.54	42.74
262	7	-3.54	12.51
263	6	-4.54	20.59
264	4	-6.54	42.74
265	10	-0.54	0.29
266	14	3.46	11.99
267	19	8.46	71.62
268	9	-1.54	2.36
269	18	7.46	55.69
270	13	2.46	6.06
271	14	3.46	11.99
272	11	0.46	0.21
273	13	2.46	6.06
274	11	0.46	0.21
275	16	5.46	29.84
276	17	6.46	41.77
277	16	5.46	29.84
278	10	-0.54	0.29
279	12	1.46	2.14
280	24	13.46	181.24
281	20	9.46	89.54
282	13	2.46	6.06
283	14	3.46	11.99
284	7	-3.54	12.51
285	12	1.46	2.14
286	16	5.46	29.84
287	4	-6.54	42.74
288	8	-2.54	6.44
289	8	-2.54	6.44
290	8	-2.54	6.44
291	19	8.46	71.62
292	10	-0.54	0.29
293	27	16.46	271.02
294	18	7.46	55.69
295	6	-4.54	20.59
296	6	-4.54	20.59
297	7	-3.54	12.51
298	6	-4.54	20.59
299	8	-2.54	6.44
300	9	-1.54	2.36
	599		2125.042
	Sum(n)		Sum(n-N)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
301	7	-3.54	12.51
302	9	-1.54	2.36
303	5	-5.54	30.66
304	6	-4.54	20.59
305	9	-1.54	2.36
306	14	3.46	11.99
307	7	-3.54	12.51
308	11	0.46	0.21
309	11	0.46	0.21
310	5	-5.54	30.66
311	7	-3.54	12.51
312	10	-0.54	0.29
313	23	12.46	155.32
314	10	-0.54	0.29
315	12	1.46	2.14
316	8	-2.54	6.44
317	8	-2.54	6.44
318	14	3.46	11.99
319	10	-0.54	0.29
320	5	-5.54	30.66
321	6	-4.54	20.59
322	10	-0.54	0.29
323	11	0.46	0.21
324	21	10.46	109.47
325	4	-6.54	42.74
326	9	-1.54	2.36
327	6	-4.54	20.59
328	10	-0.54	0.29
329	10	-0.54	0.29
330	6	-4.54	20.59
331	8	-2.54	6.44
332	21	10.46	109.47
333	13	2.46	6.06
334	9	-1.54	2.36
335	8	-2.54	6.44
336	20	9.46	89.54
337	10	-0.54	0.29
338	9	-1.54	2.36
339	14	3.46	11.99
340	8	-2.54	6.44
341	5	-5.54	30.66
342	9	-1.54	2.36
343	9	-1.54	2.36
344	16	5.46	29.84
345	19	8.46	71.62
346	19	8.46	71.62
347	8	-2.54	6.44
348	6	-4.54	20.59
349	6	-4.54	20.59
350	8	-2.54	6.44
	509		1071.765
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY **BURIAL GROUND #2**

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE **(PHASE III - AREA-L)**

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
351	8	-2.54	6.44
352	7	-3.54	12.51
353	9	-1.54	2.36
354	6	-4.54	20.59
355	4	-6.54	42.74
356	11	0.46	0.21
357	15	4.46	19.92
358	7	-3.54	12.51
359	5	-5.54	30.66
360	14	3.46	11.99
361	9	-1.54	2.36
362	4	-6.54	42.74
363	7	-3.54	12.51
364	23	12.46	155.32
365	11	0.46	0.21
366	12	1.46	2.14
367	13	2.46	6.06
368	8	-2.54	6.44
369	5	-5.54	30.66
370	15	4.46	19.92
371	5	-5.54	30.66
372	8	-2.54	6.44
373	4	-6.54	42.74
374	8	-2.54	6.44
375	9	-1.54	2.36
376	9	-1.54	2.36
377	7	-3.54	12.51
378	6	-4.54	20.59
379	8	-2.54	6.44
380	8	-2.54	6.44
381	11	0.46	0.21
382	13	2.46	6.06
383	22	11.46	131.39
384	8	-2.54	6.44
385	14	3.46	11.99
386	18	7.46	55.69
387	5	-5.54	30.66
388	9	-1.54	2.36
389	18	7.46	55.69
390	9	-1.54	2.36
391	27	16.46	271.02
392	24	13.46	181.24
393	12	1.46	2.14
394	13	2.46	6.06
395	18	7.46	55.69
396	11	0.46	0.21
397	9	-1.54	2.36
398	11	0.46	0.21
399	6	-4.54	20.59
400	6	-4.54	20.59
	529		1438.271
	Sum(n)		Sum(n-N)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
401	10	-0.54	0.29
402	10	-0.54	0.29
403	8	-2.54	6.44
404	12	1.46	2.14
405	8	-2.54	6.44
406	10	-0.54	0.29
407	9	-1.54	2.36
408	12	1.46	2.14
409	13	2.46	6.06
410	6	-4.54	20.59
411	6	-4.54	20.59
412	4	-6.54	42.74
413	6	-4.54	20.59
414	14	3.46	11.99
415	4	-6.54	42.74
416		0.00	0.00
417		0.00	0.00
418		0.00	0.00
419		0.00	0.00
420		0.00	0.00
421		0.00	0.00
422		0.00	0.00
423		0.00	0.00
424		0.00	0.00
425		0.00	0.00
426		0.00	0.00
427		0.00	0.00
428		0.00	0.00
429		0.00	0.00
430		0.00	0.00
431		0.00	0.00
432		0.00	0.00
433		0.00	0.00
434		0.00	0.00
435		0.00	0.00
436		0.00	0.00
437		0.00	0.00
438		0.00	0.00
439		0.00	0.00
440		0.00	0.00
441		0.00	0.00
442		0.00	0.00
443		0.00	0.00
444		0.00	0.00
445		0.00	0.00
446		0.00	0.00
447		0.00	0.00
448		0.00	0.00
449		0.00	0.00
450		0.00	0.00
	132		185.6757
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY **BURIAL GROUND #2**

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
1	1	-0.52	0.27
2	1	-0.52	0.27
3	1	-0.52	0.27
4	1	-0.52	0.27
5	1	-0.52	0.27
6	1	-0.52	0.27
7	1	-0.52	0.27
8	1	-0.52	0.27
9	1	-0.52	0.27
10	1	-0.52	0.27
11	1	-0.52	0.27
12	1	-0.52	0.27
13	1	-0.52	0.27
14	1	-0.52	0.27
15	2	0.48	0.23
16	1	-0.52	0.27
17	1	-0.52	0.27
18	1	-0.52	0.27
19	2	0.48	0.23
20	1	-0.52	0.27
21	2	0.48	0.23
22	2	0.48	0.23
23	2	0.48	0.23
24	2	0.48	0.23
25	1	-0.52	0.27
26	2	0.48	0.23
27	1	-0.52	0.27
28	2	0.48	0.23
29	1	-0.52	0.27
30	1	-0.52	0.27
31	2	0.48	0.23
32	2	0.48	0.23
33	1	-0.52	0.27
34	2	0.48	0.23
35	2	0.48	0.23
36	2	0.48	0.23
37	1	-0.52	0.27
38	2	0.48	0.23
39	1	-0.52	0.27
40	2	0.48	0.23
41	1	-0.52	0.27
42	1	-0.52	0.27
43	2	0.48	0.23
44	1	-0.52	0.27
45	2	0.48	0.23
46	1	-0.52	0.27
47	2	0.48	0.23
48	2	0.48	0.23
49	1	-0.52	0.27
50	2	0.48	0.23
	75		12.526201
	79		12.343069
	79		12.343069
	75		14.526201
	74		12.571984
	73		12.617767
	80		12.297286
	27		5.5518363
	632		107.53253
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 415

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.52

Standard Deviation (Sd) = SQRT $[(n-N)^2 \div (x - 1)]$

Standard Deviation: 0.51

2 Std Deviations: 1.02

Degree of Freedom(df).= (x) - 1 Data listed on Table B-1

(df) = 1.649

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/(x)]

(Aμ) = 1.56 pCi/gTh (NAT)

GUIDELINE VALUE 10 pCi/gTh (NAT)

Acceptable Level: 4.0 pCi/gTh (NAT)

(25% OF GUIDELINE PLUS BACKGROUND)

TABLE B - 1

Factors for Comparision of Survey Data with Guidelines					
(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

For values of Degrees of Freedom not listed:

Interpolate between the listed values.

(df) high value(Z)	Infinite	is (B)	1.645	95%
(df) low value(Y)	400	is (A)	1.649	95%
Desired value(df) (X)	414	is calculated as follow:		

EXP[((Ln(B)-Ln(A)) ÷ (Z-Y)) (X-Y) + Ln(A)]

The (df) value for (X	414	1.649	95%

PERFORMED BY: L. Powell DATE: 5-6-96

REVIEWED BY: W-a. Ayers DATE: 5-6-96

CIMARRON CORPORATION - CIMARRON FACILITY **BURIAL GROUND #2**

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
51	2	0.48	0.23
52	1	-0.52	0.27
53	1	-0.52	0.27
54	2	0.48	0.23
55	1	-0.52	0.27
56	2	0.48	0.23
57	2	0.48	0.23
58	2	0.48	0.23
59	1	-0.52	0.27
60	1	-0.52	0.27
61	2	0.48	0.23
62	2	0.48	0.23
63	2	0.48	0.23
64	2	0.48	0.23
65	2	0.48	0.23
66	2	0.48	0.23
67	2	0.48	0.23
68	2	0.48	0.23
69	1	-0.52	0.27
70	1	-0.52	0.27
71	1	-0.52	0.27
72	1	-0.52	0.27
73	1	-0.52	0.27
74	1	-0.52	0.27
75	1	-0.52	0.27
76	2	0.48	0.23
77	2	0.48	0.23
78	1	-0.52	0.27
79	2	0.48	0.23
80	2	0.48	0.23
81	1	-0.52	0.27
82	2	0.48	0.23
83	2	0.48	0.23
84	2	0.48	0.23
85	1	-0.52	0.27
86	2	0.48	0.23
87	1	-0.52	0.27
88	2	0.48	0.23
89	1	-0.52	0.27
90	2	0.48	0.23
91	1	-0.52	0.27
92	1	-0.52	0.27
93	1	-0.52	0.27
94	1	-0.52	0.27
95	1	-0.52	0.27
96	1	-0.52	0.27
97	2	0.48	0.23
98	1	-0.52	0.27
99	1	-0.52	0.27
100	2	0.48	0.23
	75		12.5
	Sum(n)		$Sum(n-N)^2$

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
101	2	0.48	0.23
102	2	0.48	0.23
103	1	-0.52	0.27
104	1	-0.52	0.27
105	1	-0.52	0.27
106	2	0.48	0.23
107	2	0.48	0.23
108	2	0.48	0.23
109	2	0.48	0.23
110	1	-0.52	0.27
111	2	0.48	0.23
112	1	-0.52	0.27
113	1	-0.52	0.27
114	2	0.48	0.23
115	2	0.48	0.23
116	2	0.48	0.23
117	1	-0.52	0.27
118	2	0.48	0.23
119	2	0.48	0.23
120	1	-0.52	0.27
121	1	-0.52	0.27
122	2	0.48	0.23
123	1	-0.52	0.27
124	2	0.48	0.23
125	2	0.48	0.23
126	2	0.48	0.23
127	2	0.48	0.23
128	2	0.48	0.23
129	2	0.48	0.23
130	2	0.48	0.23
131	2	0.48	0.23
132	2	0.48	0.23
133	2	0.48	0.23
134	1	-0.52	0.27
135	1	-0.52	0.27
136	2	0.48	0.23
137	1	-0.52	0.27
138	1	-0.52	0.27
139	1	-0.52	0.27
140	1	-0.52	0.27
141	2	0.48	0.23
142	1	-0.52	0.27
143	2	0.48	0.23
144	1	-0.52	0.27
145	1	-0.52	0.27
146	1	-0.52	0.27
147	2	0.48	0.23
148	2	0.48	0.23
149	1	-0.52	0.27
150	2	0.48	0.23
	79		12.3
	Sum(n)		$Sum(n-N)^2$

CIMARRON CORPORATION - CIMARRON FACILITY BURIAL GROUND #2
TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
151	2	0.48	0.23
152	2	0.48	0.23
153	2	0.48	0.23
154	2	0.48	0.23
155	1	-0.52	0.27
156	1	-0.52	0.27
157	2	0.48	0.23
158	1	-0.52	0.27
159	2	0.48	0.23
160	2	0.48	0.23
161	2	0.48	0.23
162	1	-0.52	0.27
163	2	0.48	0.23
164	2	0.48	0.23
165	1	-0.52	0.27
166	1	-0.52	0.27
167	1	-0.52	0.27
168	2	0.48	0.23
169	2	0.48	0.23
170	1	-0.52	0.27
171	2	0.48	0.23
172	1	-0.52	0.27
173	1	-0.52	0.27
174	1	-0.52	0.27
175	2	0.48	0.23
176	2	0.48	0.23
177	2	0.48	0.23
178	2	0.48	0.23
179	2	0.48	0.23
180	2	0.48	0.23
181	2	0.48	0.23
182	2	0.48	0.23
183	2	0.48	0.23
184	1	-0.52	0.27
185	2	0.48	0.23
186	1	-0.52	0.27
187	1	-0.52	0.27
188	1	-0.52	0.27
189	1	-0.52	0.27
190	1	-0.52	0.27
191	1	-0.52	0.27
192	2	0.48	0.23
193	2	0.48	0.23
194	1	-0.52	0.27
195	2	0.48	0.23
196	2	0.48	0.23
197	2	0.48	0.23
198	2	0.48	0.23
199	1	-0.52	0.27
200	1	-0.52	0.27
	79		12.3
			$Sum(n-N)^2$

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
201	2	0.48	0.23
202	2	0.48	0.23
203	2	0.48	0.23
204	2	0.48	0.23
205	2	0.48	0.23
206	1	-0.52	0.27
207	1	-0.52	0.27
208	2	0.48	0.23
209	2	0.48	0.23
210	1	-0.52	0.27
211	2	0.48	0.23
212	1	-0.52	0.27
213	1	-0.52	0.27
214	1	-0.52	0.27
215	1	-0.52	0.27
216	1	-0.52	0.27
217	1	-0.52	0.27
218	1	-0.52	0.27
219	1	-0.52	0.27
220	2	0.48	0.23
221	2	0.48	0.23
222	2	0.48	0.23
223	2	0.48	0.23
224	1	-0.52	0.27
225	1	-0.52	0.27
226	2	0.48	0.23
227	2	0.48	0.23
228	1	-0.52	0.27
229	2	0.48	0.23
230	1	-0.52	0.27
231	2	0.48	0.23
232	2	0.48	0.23
233	1	-0.52	0.27
234	2	0.48	0.23
235	1	-0.52	0.27
236	1	-0.52	0.27
237	1	-0.52	0.27
238	2	0.48	0.23
239	1	-0.52	0.27
240	1	-0.52	0.27
241	1	-0.52	0.27
242	1	-0.52	0.27
243	1	-0.52	0.27
244	1	-0.52	0.27
245	3	1.48	2.18
246	2	0.48	0.23
247	2	0.48	0.23
248	2	0.48	0.23
249	1	-0.52	0.27
250	2	0.48	0.23
	75		14.5
	Sum(n)		$Sum(n-N)^2$

CIMARRON CORPORATION - CIMARRON FACILITY BURIAL GROUND #2
TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
251	1	-0.52	0.27
252	1	-0.52	0.27
253	1	-0.52	0.27
254	1	-0.52	0.27
255	1	-0.52	0.27
256	2	0.48	0.23
257	1	-0.52	0.27
258	1	-0.52	0.27
259	1	-0.52	0.27
260	1	-0.52	0.27
261	2	0.48	0.23
262	1	-0.52	0.27
263	1	-0.52	0.27
264	1	-0.52	0.27
265	2	0.48	0.23
266	2	0.48	0.23
267	2	0.48	0.23
268	1	-0.52	0.27
269	2	0.48	0.23
270	2	0.48	0.23
271	2	0.48	0.23
272	2	0.48	0.23
273	2	0.48	0.23
274	1	-0.52	0.27
275	1	-0.52	0.27
276	2	0.48	0.23
277	2	0.48	0.23
278	2	0.48	0.23
279	1	-0.52	0.27
280	2	0.48	0.23
281	1	-0.52	0.27
282	2	0.48	0.23
283	1	-0.52	0.27
284	2	0.48	0.23
285	1	-0.52	0.27
286	2	0.48	0.23
287	1	-0.52	0.27
288	1	-0.52	0.27
289	1	-0.52	0.27
290	2	0.48	0.23
291	2	0.48	0.23
292	1	-0.52	0.27
293	2	0.48	0.23
294	1	-0.52	0.27
295	2	0.48	0.23
296	2	0.48	0.23
297	2	0.48	0.23
298	2	0.48	0.23
299	1	-0.52	0.27
300	1	-0.52	0.27
	74		12.6
	Sum(n)		Sum(n-N)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
301	1	-0.52	0.27
302	2	0.48	0.23
303	2	0.48	0.23
304	1	-0.52	0.27
305	1	-0.52	0.27
306	1	-0.52	0.27
307	1	-0.52	0.27
308	1	-0.52	0.27
309	1	-0.52	0.27
310	2	0.48	0.23
311	1	-0.52	0.27
312	2	0.48	0.23
313	2	0.48	0.23
314	1	-0.52	0.27
315	2	0.48	0.23
316	1	-0.52	0.27
317	1	-0.52	0.27
318	1	-0.52	0.27
319	1	-0.52	0.27
320	1	-0.52	0.27
321	2	0.48	0.23
322	2	0.48	0.23
323	1	-0.52	0.27
324	2	0.48	0.23
325	1	-0.52	0.27
326	1	-0.52	0.27
327	2	0.48	0.23
328	2	0.48	0.23
329	2	0.48	0.23
330	1	-0.52	0.27
331	1	-0.52	0.27
332	2	0.48	0.23
333	1	-0.52	0.27
334	1	-0.52	0.27
335	2	0.48	0.23
336	2	0.48	0.23
337	2	0.48	0.23
338	2	0.48	0.23
339	1	-0.52	0.27
340	1	-0.52	0.27
341	2	0.48	0.23
342	1	-0.52	0.27
343	1	-0.52	0.27
344	2	0.48	0.23
345	2	0.48	0.23
346	1	-0.52	0.27
347	1	-0.52	0.27
348	2	0.48	0.23
349	2	0.48	0.23
350	2	0.48	0.23
	73		12.6
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY BURIAL GROUND #2

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L)

n = pCi/g Th (NAT)

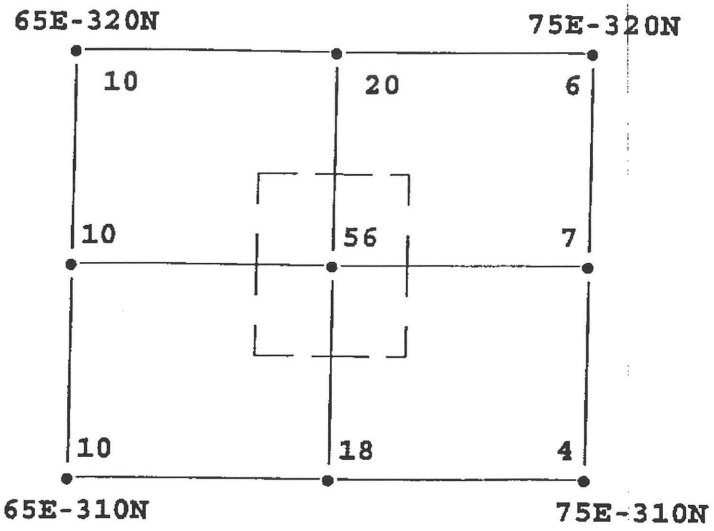
Number	n	(n-N)	$(n-N)^2$
351	2	0.48	0.23
352	2	0.48	0.23
353	2	0.48	0.23
354	2	0.48	0.23
355	2	0.48	0.23
356	1	-0.52	0.27
357	1	-0.52	0.27
358	1	-0.52	0.27
359	1	-0.52	0.27
360	2	0.48	0.23
361	2	0.48	0.23
362	1	-0.52	0.27
363	2	0.48	0.23
364	1	-0.52	0.27
365	1	-0.52	0.27
366	1	-0.52	0.27
367	1	-0.52	0.27
368	1	-0.52	0.27
369	1	-0.52	0.27
370	2	0.48	0.23
371	1	-0.52	0.27
372	2	0.48	0.23
373	1	-0.52	0.27
374	1	-0.52	0.27
375	2	0.48	0.23
376	2	0.48	0.23
377	2	0.48	0.23
378	2	0.48	0.23
379	2	0.48	0.23
380	1	-0.52	0.27
381	2	0.48	0.23
382	2	0.48	0.23
383	1	-0.52	0.27
384	2	0.48	0.23
385	2	0.48	0.23
386	2	0.48	0.23
387	2	0.48	0.23
388	2	0.48	0.23
389	2	0.48	0.23
390	2	0.48	0.23
391	2	0.48	0.23
392	2	0.48	0.23
393	2	0.48	0.23
394	1	-0.52	0.27
395	1	-0.52	0.27
396	2	0.48	0.23
397	1	-0.52	0.27
398	1	-0.52	0.27
399	2	0.48	0.23
400	2	0.48	0.23
	80		12.3
	Sum(n)		Sum(n-N)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
401	1	-0.52	0.27
402	2	0.48	0.23
403	2	0.48	0.23
404	2	0.48	0.23
405	2	0.48	0.23
406	2	0.48	0.23
407	1	-0.52	0.27
408	2	0.48	0.23
409	2	0.48	0.23
410	2	0.48	0.23
411	2	0.48	0.23
412	2	0.48	0.23
413	3	1.48	2.18
414	1	-0.52	0.27
415	1	-0.52	0.27
416		0.00	0.00
417		0.00	0.00
418		0.00	0.00
419		0.00	0.00
420		0.00	0.00
421		0.00	0.00
422		0.00	0.00
423		0.00	0.00
424		0.00	0.00
425		0.00	0.00
426		0.00	0.00
427		0.00	0.00
428		0.00	0.00
429		0.00	0.00
430		0.00	0.00
431		0.00	0.00
432		0.00	0.00
433		0.00	0.00
434		0.00	0.00
435		0.00	0.00
436		0.00	0.00
437		0.00	0.00
438		0.00	0.00
439		0.00	0.00
440		0.00	0.00
441		0.00	0.00
442		0.00	0.00
443		0.00	0.00
444		0.00	0.00
445		0.00	0.00
446		0.00	0.00
447		0.00	0.00
448		0.00	0.00
449		0.00	0.00
450		0.00	0.00
	27		5.6
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
HOT SPOT AVERAGING (10 METER X 10 METER GRID)

(HOT SPOT) LOCATION - 70E - 315N (56 pCi/gU)



LOCATION	pCi/gU
65E - 320N	10
65E - 315N	10
65E - 310N	10
70E - 320N	20
70E - 310N	18
75E - 320N	6
75E - 315N	7
75E - 310N	4
TOTAL:	85

AVERAGE: 85 ÷ 8 = 10.625

X_w = 10.625 [1 - 25/100] + 56 [25/100]

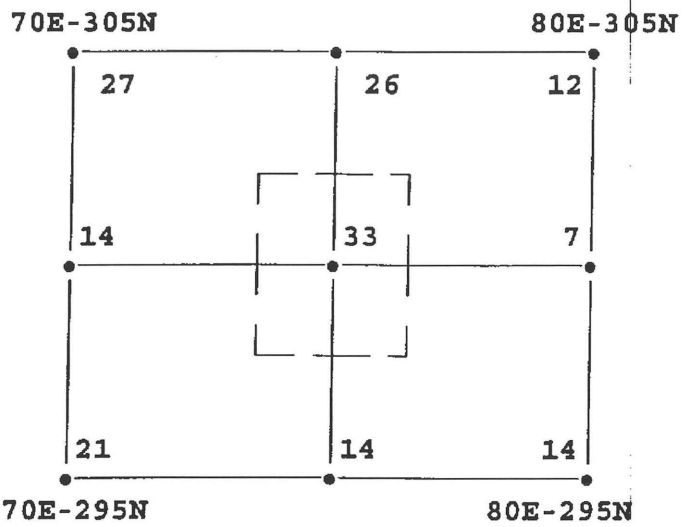
X_w = 10.625 [.75] + [56 X .25]

X_w = 7.96875 + 14 = 21.97

X_w = 21.97 pCi/gU OR 22 pCi/gU

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
HOT SPOT AVERAGING (10 METER X 10 METER GRID)

(HOT SPOT) LOCATION - 75E - 300N (33 pCi/gU)



LOCATION	pCi/gU
80E - 305N	12
80E - 300N	7
80E - 295N	14
75E - 305N	26
75E - 295N	14
70E - 305N	27
70E - 300N	14
70E - 295N	21
TOTAL:	135

AVERAGE: 135 ÷ 8 = 16.875

X_w = 16.875 [1 - 25/100] + 33 [25/100]

X_w = 16.875 [.75] + [33 X .25]

X_w = 12.65625 + 8.25 = 20.91

X_w = 20.91 pCi/gU OR 21 pCi/gU

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total U	Th (Nat)
1	25E - 215N	2600	7	7	6	1
2	25E - 220N	2330	7	7	4	1
3	25E - 225N	3020	7	8	6	1
4	25E - 230N	3130	8	9	11	1
5	25E - 235N	2340	7	7	5	1
6	25E - 240N	2810	8	7	7	1
7	25E - 245N	2940	8	7	5	1
8	25E - 250N	3010	8	7	8	1
9	25E - 255N	3180	8	8	6	1
10	25E - 260N	2760	7	8	6	1
11	25E - 265N	2840	8	7	5	1
12	25E - 270N	2750	7	7	8	1
[illegible]	25E - 275N	3030	8	7	8	1
[illegible]	25E - 280N	2860	7	7	7	1
15	25E - 285N	2490	7	6	6	2
16	25E - 290N	2230	7	7	4	1
17	25E - 295N	3480	7	7	7	1
18	25E - 300N	3610	8	10	4	1
19	25E - 305N	3920	9	9	7	2
20	25E - 310N	3490	10	9	6	1
21	25E - 315N	3820	10	9	10	2
22	25E - 320N	3770	9	10	8	2
23	25E - 325N	3610	10	10	8	2
24	25E - 330N	4060	10	10	2	2
25	25E - 335N	4030	10	11	7	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	30E - 215N	3460	8	9	4	2
2	30E - 220N	3750	10	10	9	1
3	30E - 225N	3820	8	9	7	2
4	30E - 230N	4140	8	9	10	1
5	30E - 235N	4290	10	9	7	1
6	30E - 240N	3770	9	8	7	2
7	30E - 245N	3800	9	10	8	2
8	30E - 250N	3950	9	9	5	1
9	30E - 255N	4090	9	10	8	2
10	30E - 260N	3770	9	9	4	2
11	30E - 265N	4120	9	8	7	2
12	30E - 270N	4000	9	10	9	1
13	30E - 275N	3750	9	10	5	2
14	30E - 280N	3480	8	8	8	1
15	30E - 285N	3980	9	9	7	2
16	30E - 290N	3720	8	8	7	1
17	30E - 295N	3450	9	8	4	1
18	30E - 300N	3460	9	9	9	2
19	30E - 305N	3220	8	8	5	1
20	30E - 310N	3610	9	9	6	2
21	30E - 315N	3760	9	9	9	1
22	30E - 320N	3060	8	8	9	2
23	30E - 325N	4260	10	11	9	2
24	30E - 330N	4060	10	10	7	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	35E - 215N	3970	8	8	24	2
2	35E - 220N	5274	9	9	19	2
3	35E - 225N	5090	9	8	24	1
4	35E - 230N	4530	9	9	12	1
5	35E - 235N	3092	8	8	12	2
6	35E - 240N	4128	9	9	9	1
7	35E - 245N	3690	9	9	5	2
8	35E - 250N	3800	9	8	8	2
9	35E - 255N	4060	10	10	14	2
10	35E - 260N	4220	8	9	12	1
11	35E - 265N	4190	10	10	7	1
12	35E - 270N	4180	10	9	5	2
13	35E - 275N	4030	9	9	5	2
14	35E - 280N	3590	9	10	7	2
15	35E - 285N	3850	9	9	7	2
16	35E - 290N	4170	9	10	7	2
17	35E - 295N	3510	9	9	6	2
18	35E - 300N	3090	9	8	8	2
19	35E - 305N	3320	8	9	8	2
20	35E - 310N	3200	8	7	6	1
21	35E - 315N	3660	9	8	10	1
22	35E - 320N	3340	8	9	6	1
23	35E - 325N	3790	8	9	5	1
24	35E - 330N	3800	9	10	11	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	40E - 215N	3182	8	8	5	1
2	40E - 220N	4700	8	8	6	1
3	40E - 225N	4800	9	8	7	2
4	40E - 230N	5250	8	10	23	2
5	40E - 235N	5070	9	9	14	1
6	40E - 240N	5450	9	9	8	2
7	40E - 245N	4038	9	9	8	2
8	40E - 250N	3640	9	9	10	1
9	40E - 255N	3880	9	10	13	2
10	40E - 260N	3650	9	8	9	2
11	40E - 265N	3750	9	9	4	2
12	40E - 270N	3360	8	9	9	1
[illegible]	40E - 275N	3490	8	8	8	2
[illegible]	40E - 280N	3560	9	10	5	1
15	40E - 285N	3400	8	9	9	2
16	40E - 290N	3660	9	9	5	1
17	40E - 295N	2950	8	8	7	2
18	40E - 300N	2810	8	8	5	1
19	40E - 305N	3250	8	7	7	1
20	40E - 310N	3140	8	8	9	1
21	40E - 315N	3090	7	7	7	1
22	40E - 320N	3500	9	9	6	1
23	40E - 325N	3680	8	8	8	1
24	40E - 330N	3490	9	9	7	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
C[illegible]RON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	45E - 215N	3630	8	9	22	1
2	45E - 220N	3442	8	9	10	1
3	45E - 225N	4650	8	9	11	2
4	45E - 230N	5060	11	10	13	2
5	45E - 235N	4670	9	9	10	2
6	45E - 240N	5340	10	10	13	1
7	45E - 245N	3580	9	9	21	1
8	45E - 250N	3554	9	9	9	1
9	45E - 255N	3994	9	10	24	2
10	45E - 260N	4016	10	10	14	2
11	45E - 265N	3872	9	8	19	2
12	45E - 270N	3714	9	9	12	2
13	45E - 275N	3180	9	8	11	1
[redacted]	45E - 280N	3364	9	9	5	2
15	45E - 285N	3444	8	9	11	1
16	45E - 290N	3602	8	8	19	1
17	45E - 295N	3606	9	10	14	2
18	45E - 300N	3794	10	10	7	2
19	45E - 305N	3850	9	10	7	2
20	45E - 310N	3900	9	10	16	1
21	45E - 315N	3878	9	9	11	2
22	45E - 320N	3742	9	9	13	2
23	45E - 325N	3952	10	9	8	1
24	45E - 330N	3848	9	8	8	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (nat)
1	50E - 215N	3396	8	8	13	2
2	50E - 220N	3402	8	9	10	1
3	50E - 225N	3630	8	9	12	2
4	50E - 230N	3520	8	8	14	2
5	50E - 235N	3750	8	9	11	2
6	50E - 240N	4560	10	10	12	2
7	50E - 245N	5080	9	9	18	2
8	50E - 250N	4880	11	10	11	2
9	50E - 255N	3546	9	9	11	2
10	50E - 260N	3820	9	8	19	2
11	50E - 265N	3538	9	8	7	2
12	50E - 270N	3176	8	9	6	2
[redacted]	50E - 275N	3634	8	8	9	1
[redacted]	50E - 280N	3656	9	8	8	1
15	50E - 285N	3588	8	9	12	2
16	50E - 290N	3782	9	9	11	1
17	50E - 295N	3586	9	9	7	1
18	50E - 300N	3780	8	8	12	1
19	50E - 305N	4304	9	9	7	1
20	50E - 310N	3646	9	8	9	2
21	50E - 315N	3708	8	9	12	1
22	50E - 320N	3826	8	9	8	2
23	50E - 325N	3914	8	9	9	1
24	50E - 330N	3664	8	9	17	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
C[redacted]RON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	55E - 215N	3386	8	9	10	1
2	55E - 220N	3946	9	9	9	2
3	55E - 225N	3570	9	9	5	2
4	55E - 230N	3020	8	8	9	1
5	55E - 235N	3800	9	9	5	2
6	55E - 240N	3520	8	9	11	2
7	55E - 245N	4730	9	8	11	2
8	55E - 250N	5190	8	9	8	2
9	55E - 255N	4400	10	9	10	2
10	55E - 260N	4980	8	7	18	3
11	55E - 265N	3386	9	9	9	1
12	55E - 270N	3510	9	9	9	2
[illegible]	55E - 275N	3564	8	10	5	1
[illegible]	55E - 280N	3926	9	8	6	2
15	55E - 285N	3944	9	10	23	2
16	55E - 290N	4002	11	10	12	2
17	55E - 295N	4028	9	10	13	1
18	55E - 300N	4268	10	11	7	2
19	55E - 305N	4000	10	10	6	2
20	55E - 310N	2814	9	8	9	1
21	55E - 315N	2318	8	8	18	1
22	55E - 320N	4050	8	9	12	1
23	55E - 325N	4208	8	10	17	2
24	55E - 330N	3674	9	9	21	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
	pCi/g	4 U Total	TOTAL U - 10
[illegible]ARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	1.5 Th(Nat)	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. a. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	60E - 215N	3100	8	8	7	1
2	60E - 220N	3712	9	9	8	2
3	60E - 225N	3450	8	9	7	1
4	60E - 230N	3090	8	9	7	1
5	60E - 235N	3210	8	9	18	1
6	60E - 240N	3310	8	9	9	2
7	60E - 245N	3470	9	9	7	2
8	60E - 250N	5090	10	11	9	2
9	60E - 255N	5320	9	9	18	2
10	60E - 260N	4980	8	7	18	3
11	60E - 265N	3584	8	9	12	2
12	60E - 270N	3570	9	8	8	2
[illegible]	60E - 275N	3842	8	9	17	2
[illegible]	60E - 280N	3224	9	9	12	2
15	60E - 285N	3420	9	9	12	1
16	60E - 290N	2840	8	9	8	2
17	60E - 295N	3720	9	10	16	1
18	60E - 300N	3314	9	8	17	1
19	60E - 305N	3166	8	8	13	1
20	60E - 310N	2600	7	8	24	1
21	60E - 315N	2758	8	7	12	1
22	60E - 320N	2952	7	8	19	1
23	60E - 325N	4080	8	10	25	2
24	60E - 330N	3650	8	8	12	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
	pCi/g	4 U Total	TOTAL U - 10
[illegible]ARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	1.5 Th(Nat)	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.O. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	65E - 215N	3050	7	8	7	1
2	65E - 220N	3470	8	9	6	2
3	65E - 225N	3410	8	9	15	2
4	65E - 230N	3260	8	10	8	2
5	65E - 235N	3990	10	10	12	2
6	65E - 240N	2720	7	9	10	1
7	65E - 245N	3300	9	10	10	1
8	65E - 250N	4060	9	9	9	2
9	65E - 255N	3040	8	9	4	2
10	65E - 260N	3450	8	9	7	2
11	65E - 265N	3784	8	9	7	2
12	65E - 270N	3738	9	8	7	2
[redacted]	65E - 275N	2966	8	7	8	1
[redacted]	65E - 280N	3312	9	8	4	1
15	65E - 285N	4076	8	9	26	2
16	65E - 290N	4616	7	8	7	2
17	65E - 295N	3622	8	7	10	1
18	65E - 300N	4646	7	8	23	2
19	65E - 305N	4062	7	8	13	1
20	65E - 310N	3026	8	8	10	1
21	65E - 315N	2578	7	7	10	1
22	65E - 320N	1638	7	6	10	1
23	65E - 325N	3008	7	7	19	1
24	65E - 330N	2782	6	7	9	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
[redacted]ARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.a. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	70E - 215N	3420	7	8	12	1
2	70E - 220N	3620	8	9	11	1
3	70E - 225N	3570	8	8	11	2
4	70E - 230N	3880	9	10	15	2
5	70E - 235N	3680	8	9	5	2
6	70E - 240N	3410	8	9	12	2
7	70E - 245N	2950	8	9	8	1
8	70E - 250N	3580	9	9	14	1
9	70E - 255N	3610	9	11	10	2
10	70E - 260N	3170	8	9	8	2
11	70E - 265N	3444	8	8	6	1
12	70E - 270N	3668	9	8	2	2
	70E - 275N	3684	9	8	10	1
	70E - 280N	3496	9	9	7	2
15	70E - 285N	3650	10	9	5	2
16	70E - 290N	3338	10	8	22	1
17	70E - 295N	3466	8	8	21	2
18	70E - 300N	3688	9	10	14	1
19	70E - 305N	2540	7	6	27	1
20	70E - 310N	2680	7	8	18	1
21	70E - 315N	2262	6	6	56	2
22	70E - 320N	2184	6	6	20	1
23	70E - 325N	2278	6	6	18	1
24	70E - 330N	2224	7	5	2	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
	pCi/g	4 U Total	TOTAL U - 10
ARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	1.5 Th(Nat)	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	75E - 215N	2640	7	8	15	1
2	75E - 220N	3210	8	8	5	1
3	75E - 225N	3780	8	8	14	1
4	75E - 230N	4040	9	9	6	3
5	75E - 235N	3730	9	10	13	2
6	75E - 240N	3500	8	10	11	2
7	75E - 245N	3310	9	8	12	2
8	75E - 250N	3050	8	7	12	1
9	75E - 255N	4020	8	10	14	2
10	75E - 260N	3510	8	7	8	1
11	75E - 265N	3066	8	7	6	1
12	75E - 270N	3056	7	7	4	1
	75E - 275N	3576	8	9	7	1
	75E - 280N	3850	10	10	6	1
15	75E - 285N	3378	8	8	11	2
16	75E - 290N	3010	8	8	10	1
17	75E - 295N	2970	7	8	14	1
18	75E - 300N	3220	8	7	33	1
19	75E - 305N	3760	8	8	26	1
20	75E - 310N	3136	7	8	4	2
21	75E - 315N	2070	6	6	7	1
22	75E - 320N	1612	6	5	6	1
23	75E - 325N	1956	5	6	4	1
24	75E - 330N	3666	7	7	10	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
C[illegible]RON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	80E - 210N	3400	7	7	14	2
2	80E - 215N	3320	8	8	19	2
3	80E - 220N	3670	8	9	9	1
4	80E - 225N	3690	8	8	18	2
5	80E - 230N	4070	8	8	13	2
6	80E - 235N	3750	8	9	14	2
7	80E - 240N	3960	9	9	11	2
8	80E - 245N	3640	9	8	13	2
9	80E - 250N	3240	7	8	11	1
10	80E - 255N	3520	8	8	16	1
11	80E - 260N	3800	9	10	17	2
12	80E - 265N	3652	7	8	16	2
	80E - 270N	3462	8	8	10	2
	80E - 275N	3156	8	8	12	1
15	80E - 280N	3446	8	9	24	2
16	80E - 285N	2936	7	8	20	1
17	80E - 290N	3902	8	8	13	2
18	80E - 295N	2284	7	6	14	1
19	80E - 300N	3210	8	9	7	2
20	80E - 305N	3186	7	7	12	1
21	80E - 310N	3782	7	9	16	2
22	80E - 315N	2704	7	8	4	1
23	80E - 320N	2604	6	5	8	1
24	80E - 325N	3122	7	8	8	1
25	80E - 330N	2914	7	7	8	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
	pCi/g	4 U Total	TOTAL U - 10
CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	1.5 Th(Nat)	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.a. Rogers **DATE:** 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	85E - 210N	3396	7	7	19	2
2	85E - 215N	3384	9	9	10	1
3	85E - 220N	3074	8	7	27	2
4	85E - 225N	3010	7	7	18	1
5	85E - 230N	3870	8	9	6	2
6	85E - 235N	4870	9	10	6	2
7	85E - 240N	3570	9	8	7	2
8	85E - 245N	3690	8	10	6	2
9	85E - 250N	3010	8	6	8	1
10	85E - 255N	2830	7	7	9	1
11	85E - 260N	3960	8	8	7	1
12	85E - 265N	3410	8	7	9	2
[illegible]	85E - 270N	4196	9	10	5	2
[illegible]	85E - 275N	3864	8	9	6	1
15	85E - 280N	3172	7	7	9	1
16	85E - 285N	2492	7	7	14	1
17	85E - 290N	3094	7	7	7	1
18	85E - 295N	3710	8	8	11	1
19	85E - 300N	2840	7	7	11	1
20	85E - 305N	3262	8	8	5	2
21	85E - 310N	3470	8	8	7	1
22	85E - 315N	4054	8	8	10	2
23	85E - 320N	4066	8	9	23	2
24	85E - 325N	2624	7	7	10	1
25	85E - 330N	3556	7	7	12	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.a. Rogers **DATE:** 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	90E - 210N	2800	6	7	8	1
2	90E - 215N	2716	6	7	8	1
3	90E - 220N	3088	7	7	14	1
4	90E - 225N	3110	8	8	10	1
5	90E - 230N	3318	8	8	5	1
6	90E - 235N	3766	8	8	6	2
7	90E - 240N	3874	8	10	10	2
8	90E - 245N	3918	9	9	11	1
9	90E - 250N	4006	8	9	21	2
10	90E - 255N	3188	8	8	4	1
11	90E - 260N	3790	8	8	9	1
12	90E - 265N	3828	8	8	6	2
13	90E - 270N	3616	8	8	10	2
14	90E - 275N	4028	8	9	10	2
15	90E - 280N	3806	8	9	6	1
16	90E - 285N	2738	8	9	8	1
17	90E - 290N	4082	8	9	21	2
18	90E - 295N	3462	8	9	13	1
19	90E - 300N	3298	8	8	9	1
20	90E - 305N	4094	8	8	8	2
21	90E - 310N	4054	8	8	20	2
22	90E - 315N	4024	8	8	10	2
23	90E - 320N	3622	8	8	9	2
24	90E - 325N	3256	8	8	14	1
25	90E - 330N	3270	7	7	8	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
	pCi/g	4 U Total	TOTAL U - 10
CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	1.5 Th(Nat)	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. a. Rogers **DATE:** 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	95E - 210N	3630	7	8	5	2
2	95E - 215N	3580	7	7	9	1
3	95E - 220N	2976	8	9	9	1
4	95E - 225N	3234	7	7	16	2
5	95E - 230N	3784	8	8	19	2
6	95E - 235N	4000	8	8	19	1
7	95E - 240N	3540	8	8	8	1
8	95E - 245N	3646	8	8	6	2
9	95E - 250N	3814	8	8	6	2
10	95E - 255N	3690	8	8	8	2
11	95E - 260N	3764	8	8	8	2
12	95E - 265N	3806	8	8	7	2
[illegible]	95E - 270N	3854	8	8	9	2
[illegible]	95E - 275N	3796	8	8	6	2
15	95E - 280N	3556	9	8	4	2
16	95E - 285N	3876	8	8	11	1
17	95E - 290N	4058	8	9	15	1
18	95E - 295N	3310	8	8	7	1
19	95E - 300N	2422	8	8	5	1
20	95E - 305N	3808	8	9	14	2
21	95E - 310N	3854	8	8	9	2
22	95E - 315N	3462	8	8	4	1
23	95E - 320N	3514	8	8	7	2
24	95E - 325N	3926	8	8	23	1
25	95E - 330N	2976	8	7	11	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
[illegible]UM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
	pCi/g	4 U Total	TOTAL U - 10
CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	1.5 Th(Nat)	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	100E - 210N	3392	8	9	12	1
2	100E - 215N	3842	8	8	13	1
3	100E - 220N	3474	9	8	8	1
4	100E - 225N	3238	8	8	5	1
5	100E - 230N	3282	7	7	15	2
6	100E - 235N	3352	8	8	5	1
7	100E - 240N	3526	8	8	8	2
8	100E - 245N	3608	8	8	4	1
9	100E - 250N	3622	7	8	8	1
10	100E - 255N	3724	8	8	9	2
11	100E - 260N	3758	8	10	9	2
12	100E - 265N	3992	9	9	7	2
[redacted]	100E - 270N	4496	9	10	6	2
[redacted]	100E - 275N	3964	8	9	8	2
15	100E - 280N	3966	9	9	8	1
16	100E - 285N	3992	8	8	11	2
17	100E - 290N	4284	9	10	13	2
18	100E - 295N	3958	8	9	22	1
19	100E - 300N	3986	8	8	8	2
20	100E - 305N	4346	8	9	14	2
21	100E - 310N	4330	8	9	18	2
22	100E - 315N	3982	8	8	5	2
23	100E - 320N	4456	9	9	9	2
24	100E - 325N	3756	8	9	18	2
25	100E - 330N	3596	7	9	9	2

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.A. Rogers DATE: 5-3-96

FILE: PO3LB295

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
POST REMEDIATION SURVEY

DATE: NOVEMBER 1995

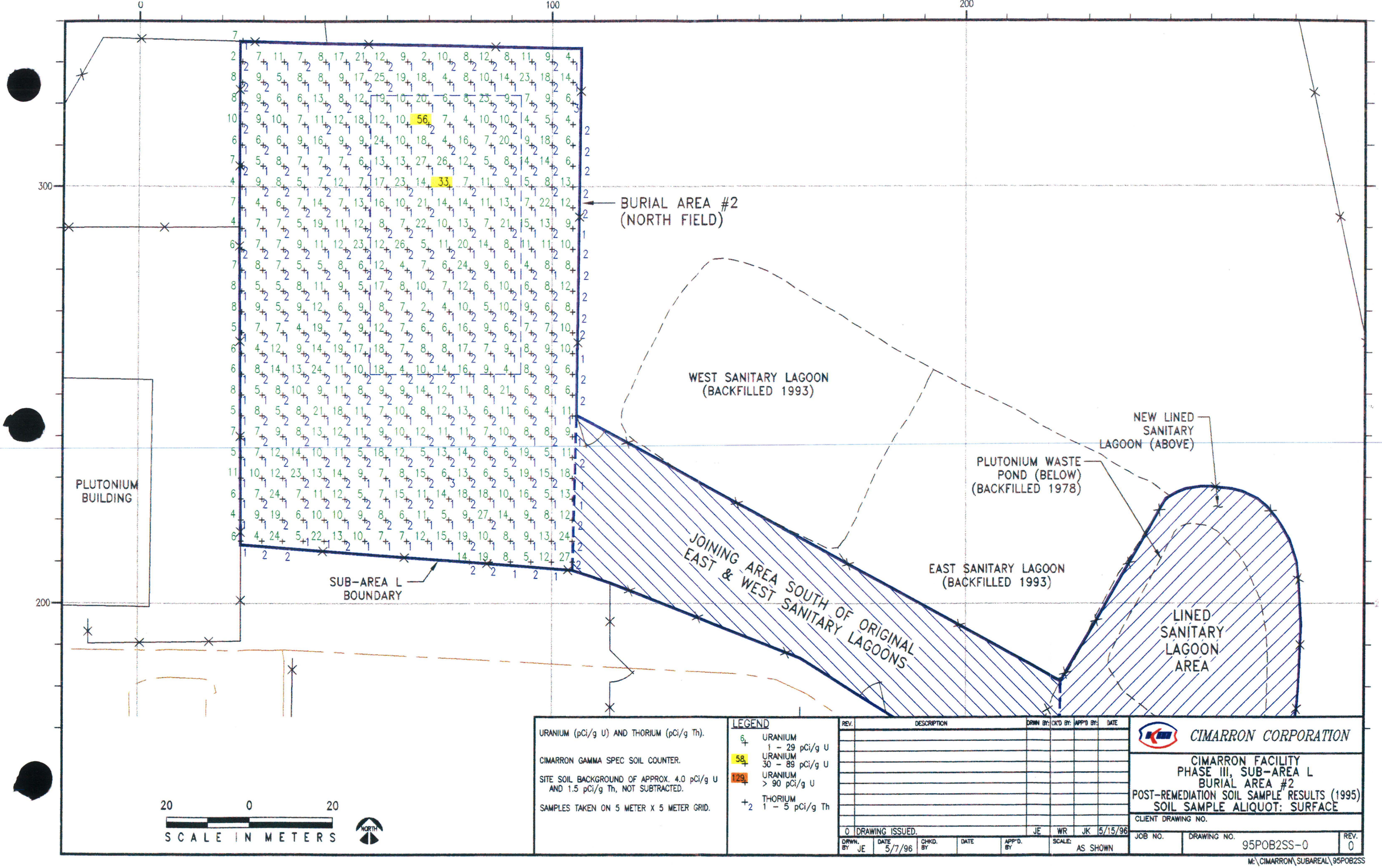
LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0-6" Sample	
					Total-U	Th (Nat)
1	105E - 210N	3180	6	6	27	2
2	105E - 215N	3617	8	8	24	2
3	105E - 220N	3450	8	7	12	2
4	105E - 225N	3188	7	7	13	1
5	105E - 230N	3232	7	8	18	1
6	105E - 235N	2886	8	7	11	2
7	105E - 240N	3726	9	8	9	1
8	105E - 245N	3762	8	9	11	1
9	105E - 250N	3030	8	9	6	2
10	105E - 255N	3888	9	9	6	2
11	105E - 260N	3620	8	9	10	1
12	105E - 265N	3786	9	9	10	2
13	105E - 270N	3944	9	10	8	2
14	105E - 275N	3932	9	10	12	2
15	105E - 280N	3884	9	9	8	2
16	105E - 285N	4080	10	9	10	2
17	105E - 290N	4246	9	9	9	1
18	105E - 295N	3916	9	10	12	2
19	105E - 300N	4192	8	8	13	2
20	105E - 305N	3904	8	10	6	2
21	105E - 310N	4186	9	9	6	2
22	105E - 315N	4100	8	8	4	2
23	105E - 320N	4040	8	9	6	3
24	105E - 325N	3340	9	9	14	1
25	105E - 330N	3820	9	8	4	1

INSTRUMENTS:	RESULTS IN	BKG	MDA
LUDLUM MICRO 'R' METER - MODEL19, S/N 111299	µR/hr	7	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR, 50057	CPM	3100	N/A
CIMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g pCi/g	4 U Total 1.5 Th(Nat)	TOTAL U - 10 Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.a. Rogers DATE: 5-3-96

FILE: PO3LB295



URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN ON 5 METER X 5 METER GRID.

LEGEND

- 6 URANIUM 1 – 29 pCi/g U
- 58 URANIUM 30 – 89 pCi/g U
- 129 URANIUM > 90 pCi/g U
- +2 THORIUM 1 – 5 pCi/g Th

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	5/7/96				AS SHOWN

CIMARRON CORPORATION

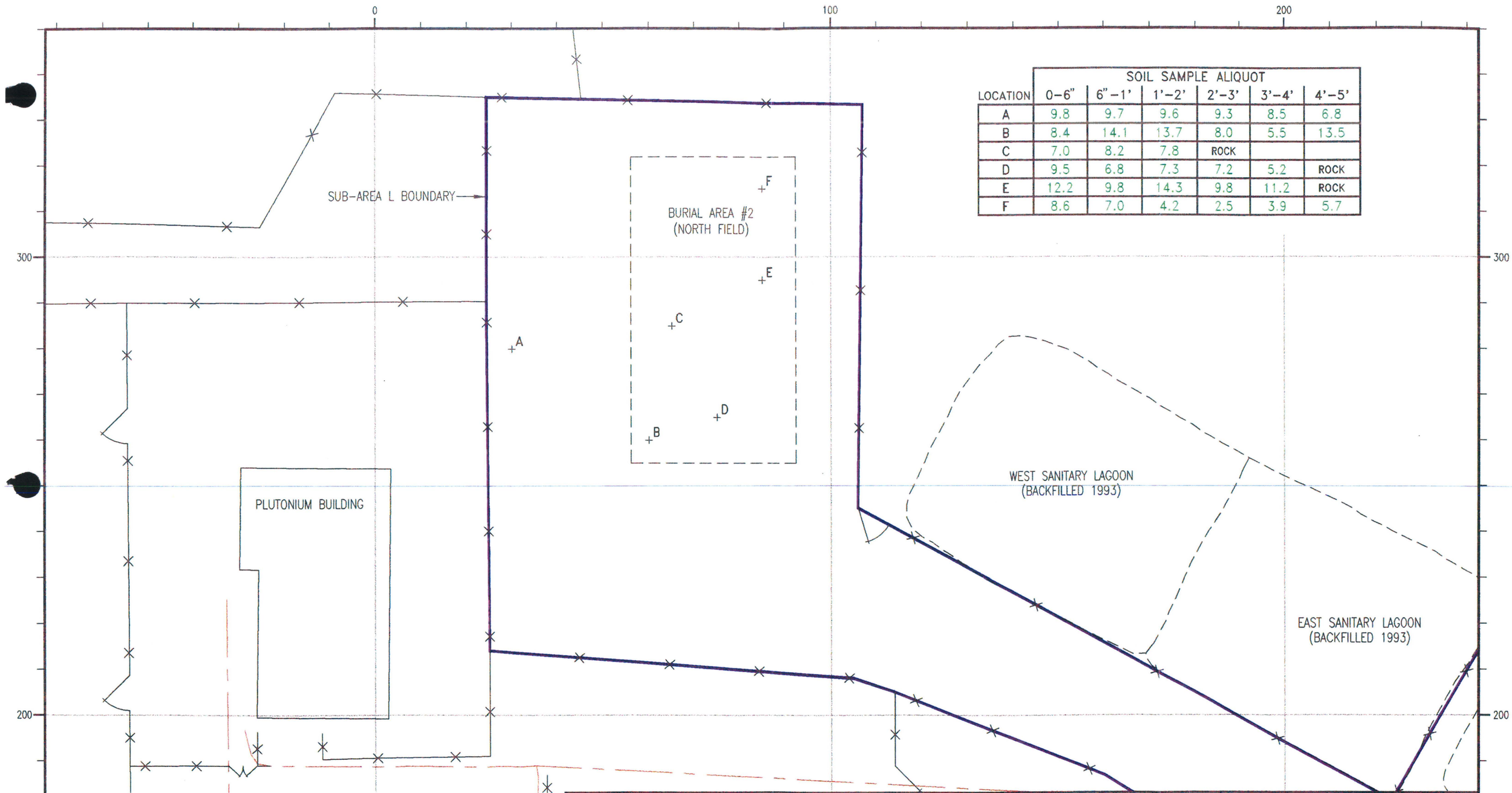
CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2
POST-REMEDIATION SOIL SAMPLE RESULTS (1995)
SOIL SAMPLE ALIQUOT: SURFACE

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	95POB2SS-0	0

M:\CIMARRON\SUBAREAL\95POB2SS

LOCATION	SOIL SAMPLE ALIQUOT					
	0–6"	6"–1'	1'–2'	2'–3'	3'–4'	4'–5'
A	9.8	9.7	9.6	9.3	8.5	6.8
B	8.4	14.1	13.7	8.0	5.5	13.5
C	7.0	8.2	7.8	ROCK		
D	9.5	6.8	7.3	7.2	5.2	ROCK
E	12.2	9.8	14.3	9.8	11.2	ROCK
F	8.6	7.0	4.2	2.5	3.9	5.7



URANIUM (pCi/g U)

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U, NOT SUBTRACTED.

LEGEND

6	URANIUM 1 – 29 pCi/g U
58	URANIUM 30 – 89 pCi/g U
129	URANIUM > 90 pCi/g U
ROCK	NO SAMPLE – HIT ROCK

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	11/22/96

DRWN. BY	DATE	CHK'D. BY	DATE	APP'D. BY	SCALE:
JE	11/11/96	WR	11/22/96		AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2 – SUB-SURFACE
CONFIRMATORY SOIL SAMPLE RESULTS (1996)

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	96LBG2SS-0	0

...\BURIAL2\96LBG2SS

LOCATION	SURFACE (μR/Hr.)	1 METER ABOVE SURFACE (μR/Hr.)
A	8	8
B	9	9
C	9	8
D	9	8
E	10	9
F	10	8

SUB-AREA L BOUNDARY

BURIAL AREA #2
(NORTH FIELD)

PLUTONIUM BUILDING

WEST SANITARY LAGOON
(BACKFILLED 1993)

EAST SANITARY LAGOON
(BACKFILLED 1993)

20 0 20
SCALE IN METERS

NORTH

READINGS ARE IN MICRO-R/HR (μR/Hr)

INSTRUMENT: LUDLUM MICRO-R METER
SERIAL NO: 111299
BACKGROUND: 7 μR/Hr

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
1	BACKGROUND OF 4 μR/Hr. AMENDED TO 7 μR/Hr.	JE	WR	JK	12/03/96
0	DRAWING ISSUED.	JE	WR	JK	11/22/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	11/18/96	WR	11/22/96		AS SHOWN

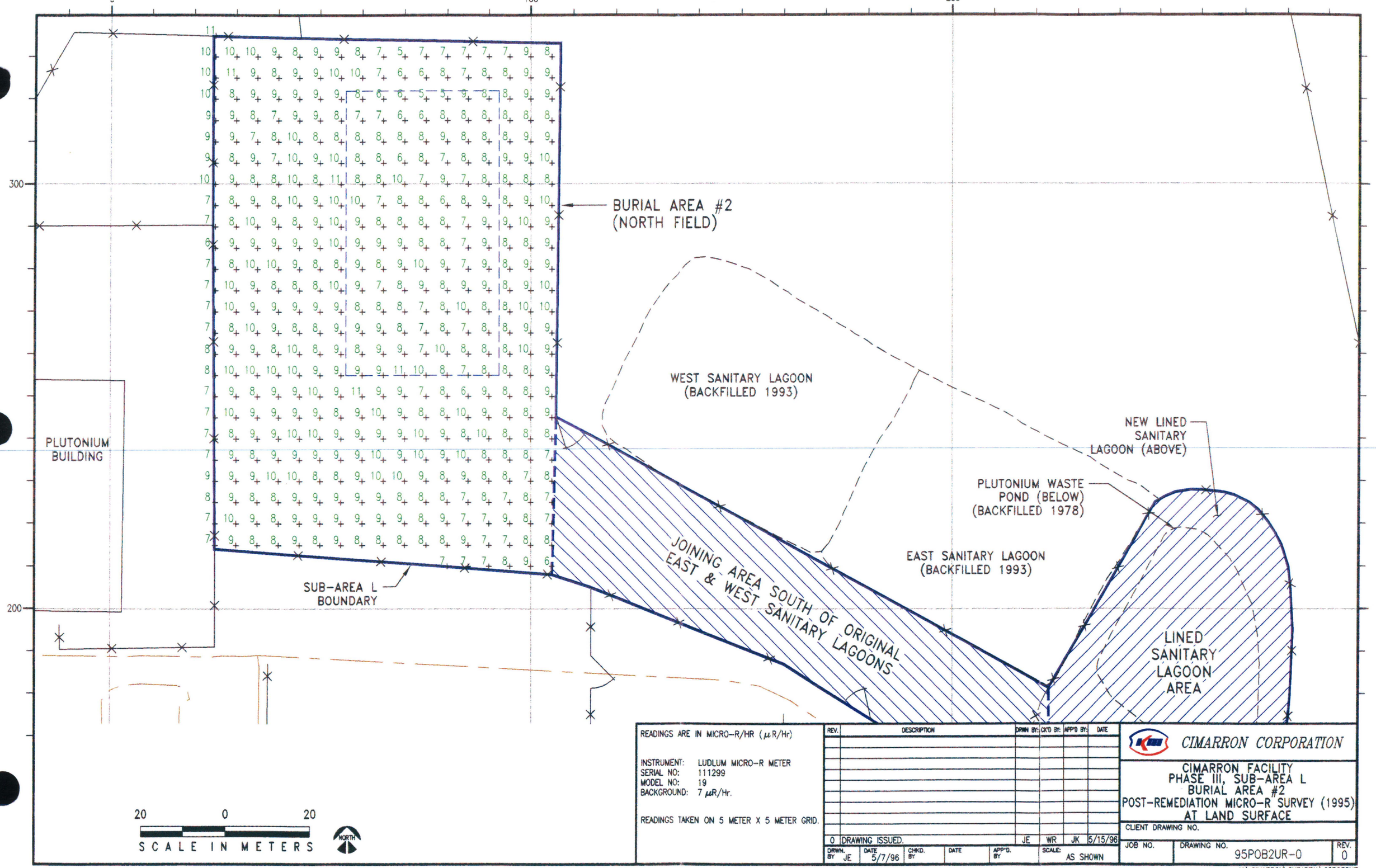
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2 - SUB-SURFACE
CONFIRMATORY MICRO-R SURVEY RESULTS (1996)

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	96LBG2UR-0	1

..\BURIAL2\96LBG2UR



READINGS ARE IN MICRO-R/HR (μR/Hr)

INSTRUMENT: LUDLUM MICRO-R METER
SERIAL NO: 111299
MODEL NO: 19
BACKGROUND: 7 μR/Hr.

READINGS TAKEN ON 5 METER X 5 METER GRID.

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHK'D. BY	DATE	APP'D. BY	SCALE:
JE	5/7/96				AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2
POST-REMEDIATION MICRO-R SURVEY (1995)
AT LAND SURFACE

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	95POB2UR-0	0

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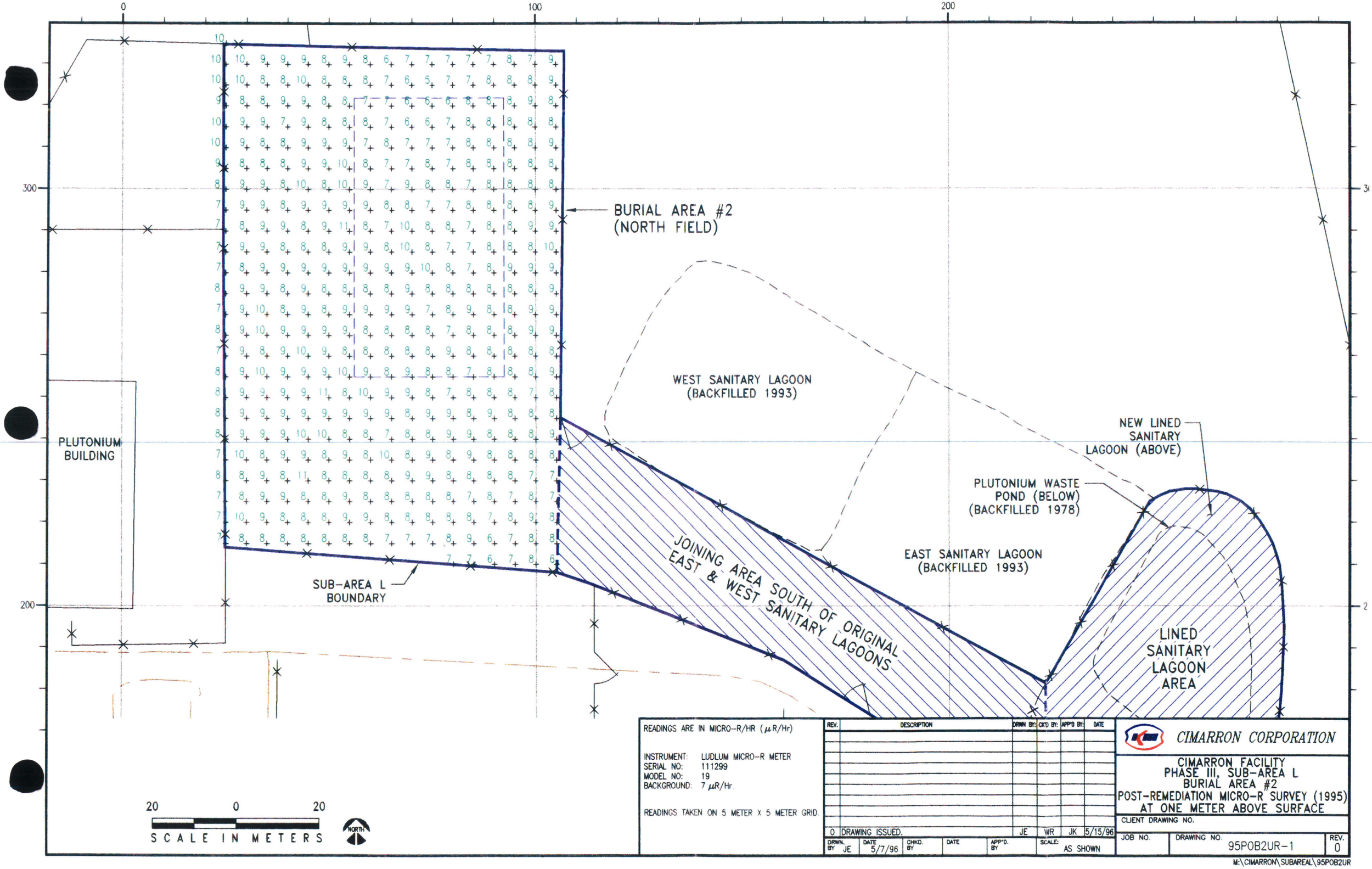


READINGS ARE IN MICRO-R/HR (μR/Hr)

INSTRUMENT: LUDLUM MICRO-R METER
SERIAL NO: 111299
MODEL NO: 19
BACKGROUND: 7 μR/Hr.

READINGS TAKEN ON 5 METER X 5 METER GRID.

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	5/7/96				AS SHOWN

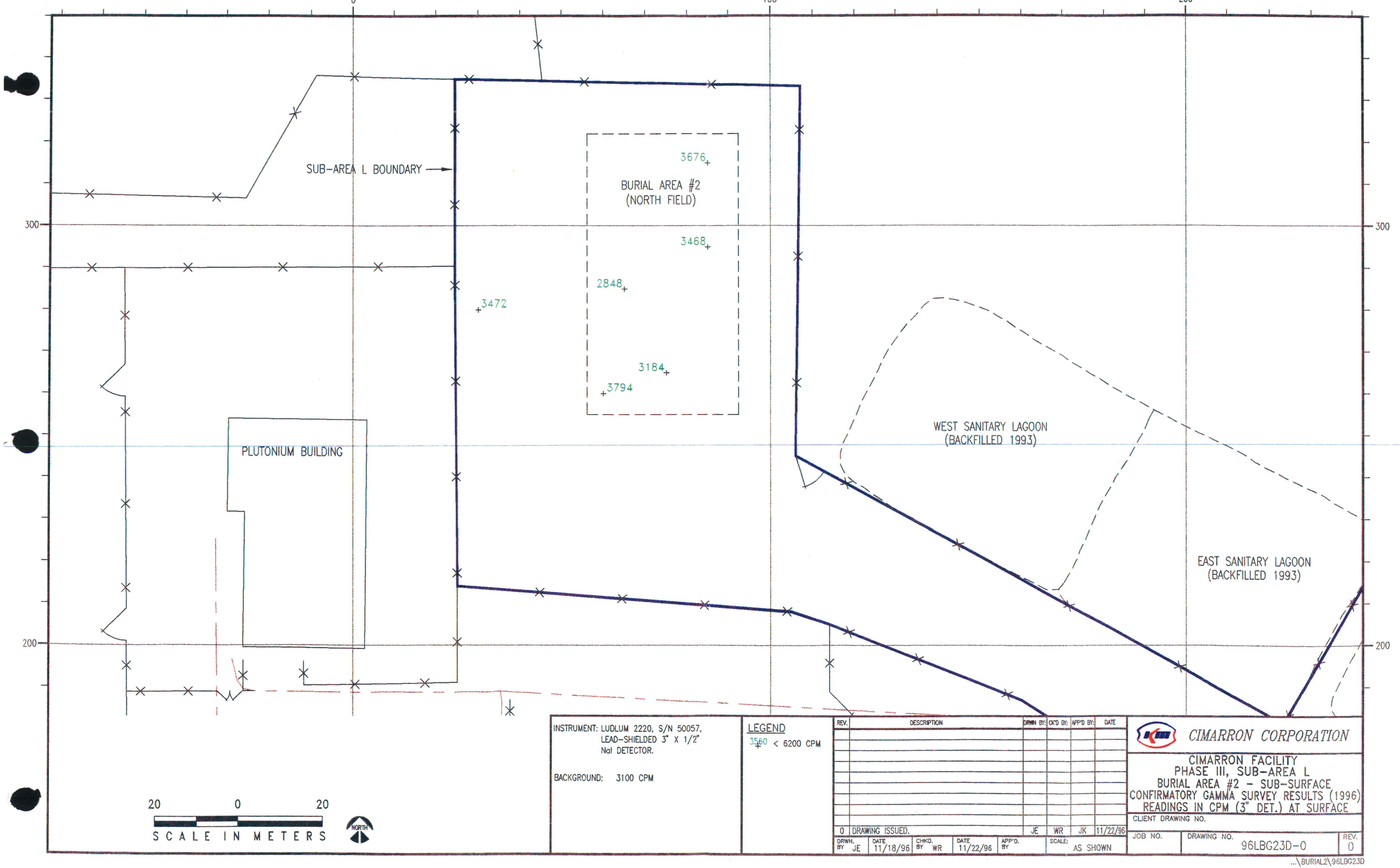
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2
POST-REMEDIATION MICRO-R SURVEY (1995)
AT ONE METER ABOVE SURFACE

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	95P0B2UR-1	0

M:\CIMARRON\SUBAREAL\95P0B2UR



INSTRUMENT: LUDLUM 2220, S/N 50057,
LEAD-SHIELDED 3" X 1/2"
NaI DETECTOR.

BACKGROUND: 3100 CPM

LEGEND

3560 < 6200 CPM

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	11/22/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	11/18/96	WR	11/22/96		AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2 - SUB-SURFACE
CONFIRMATORY GAMMA SURVEY RESULTS (1996)
READINGS IN CPM (3" DET.) AT SURFACE

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	96LBG23D-0	0

...\BURIAL2\96LBG23D

0 100 200 300

BURIAL AREA #2
(NORTH FIELD)

WEST SANITARY LAGOON
(BACKFILLED 1993)

NEW LINED
SANITARY
LAGOON (ABOVE)

PLUTONIUM WASTE
POND (BELOW)
(BACKFILLED 1978)

EAST SANITARY LAGOON
(BACKFILLED 1993)

JOINING AREA SOUTH OF ORIGINAL
EAST & WEST SANITARY LAGOONS

LINED
SANITARY
LAGOON
AREA

PLUTONIUM
BUILDING

SUB-AREA L
BOUNDARY

200

2

20 0 20
SCALE IN METERS

NORTH

INSTRUMENT: LUDLUM 2220, S/N 50057,
LEAD-SHIELDED 3" X 1/2"
NaI DETECTOR.

BACKGROUND: 3100 CPM

READINGS TAKEN ON 5 METER X 5 METER GRID.

LEGEND

3560 < 6200 CPM

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	5/7/96				AS SHOWN

CIMARRON CORPORATION

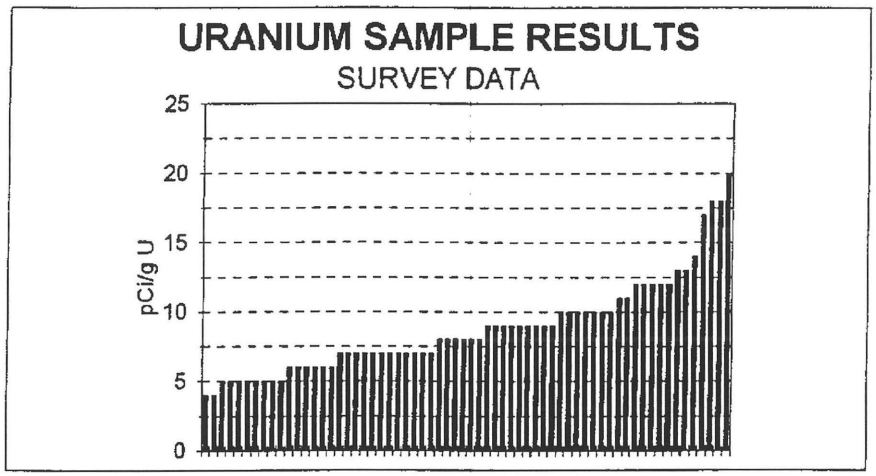
CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2
POST-REMEDIATION GAMMA SURVEY (1995)
READING IN CPM (3" DET.) AT SURFACE

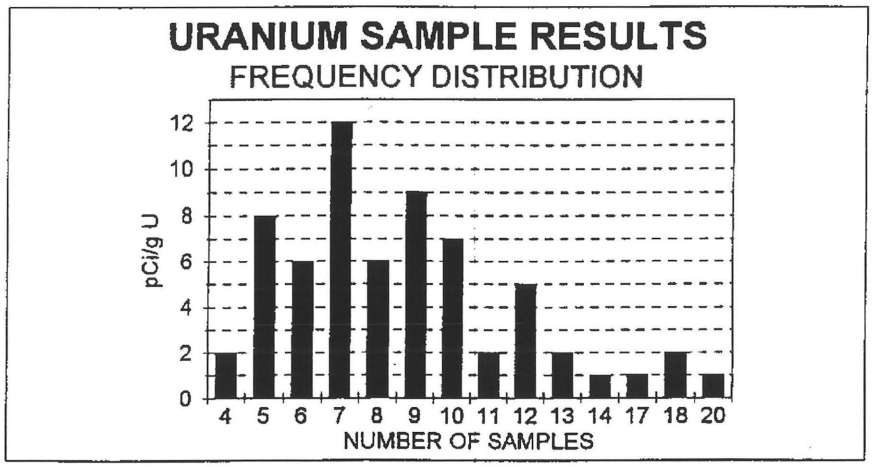
CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	95P0B23D-0	0

M:\CIMARRON\SUBAREAL\95P0B23D

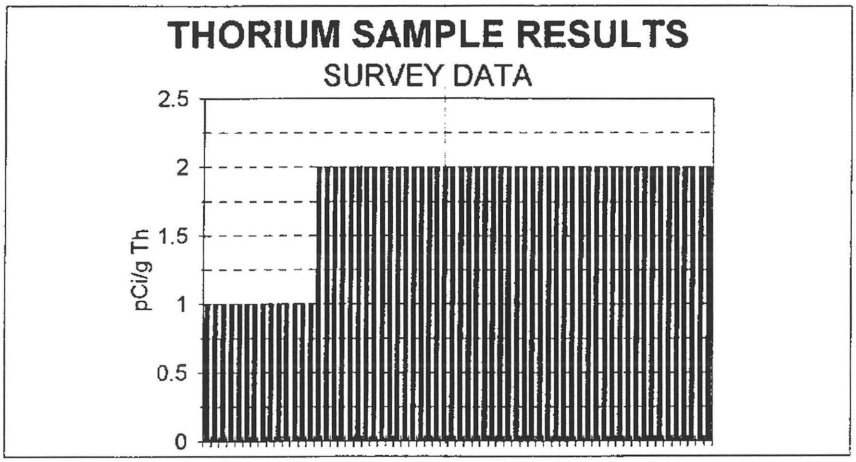
PHASE III - AREA L
BURIAL GROUND #2 OVERBURDEN
CIMARRON SOIL COUNTER
TOTAL URANIUM SOIL SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
NOVEMBER 1995

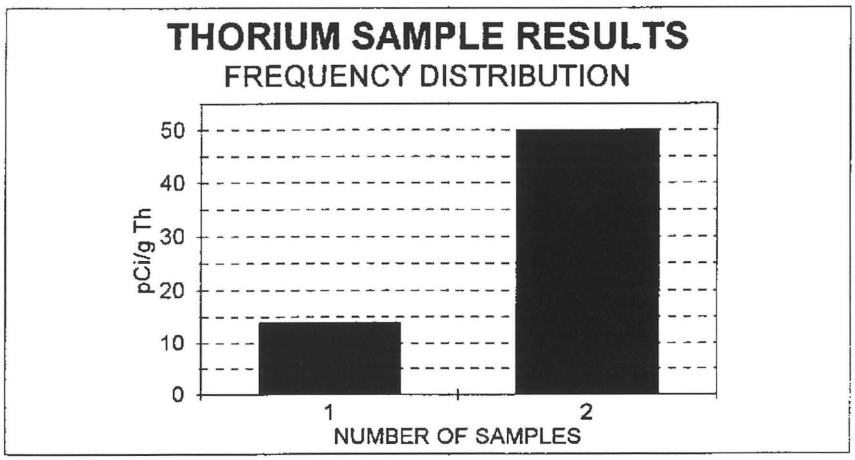




NUMBER OF SAMPLES	64
AVERAGE SAMPLE	9
MINIMUM SAMPLE	4
MAXIMUM SAMPLE	20
STANDARD DEVIATION	3

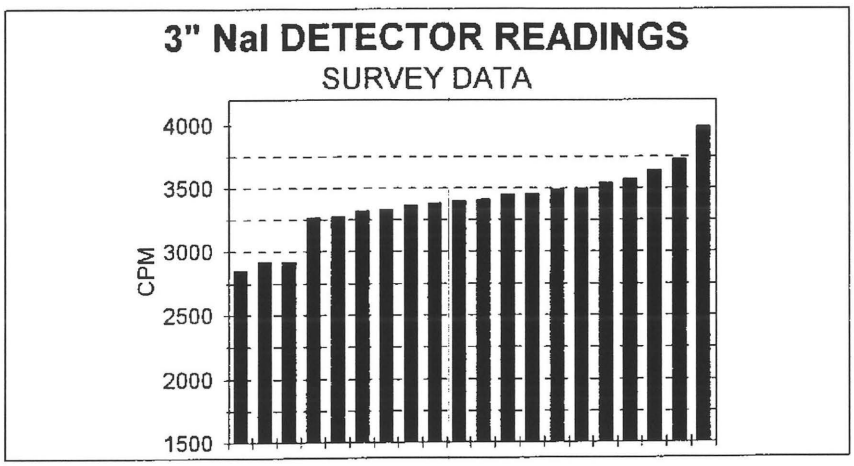
PHASE III - AREA L
BURIAL GROUND #2 OVERBURDEN
CIMARRON SOIL COUNTER
THORIUM (NAT) SOIL SAMPLE RESULTS
SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
NOVEMBER 1995

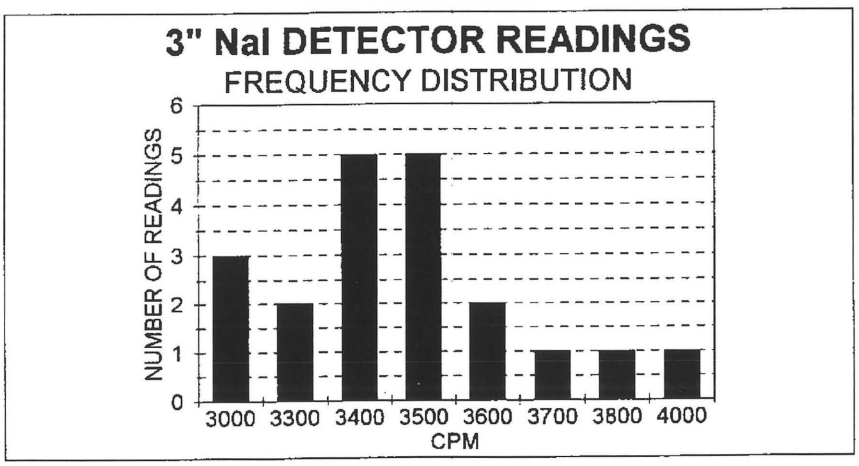




NUMBER OF SAMPLES	64
AVERAGE SAMPLE	2
MINIMUM SAMPLE	1
MAXIMUM SAMPLE	2
STANDARD DEVIATION	0

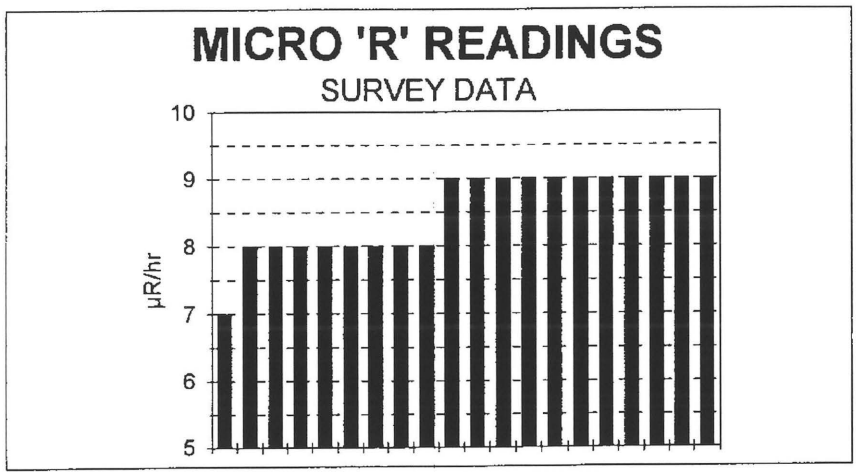
PHASE III - AREA L
BURIAL GROUND #2 OVERBURDEN
CIMARRON SOIL COUNTER
GROSS GAMMA READINGS IN CPM
LUDLUM MODEL 2220 S/N 50057
BACKGROUND AVERAGE: 3100 CPM
NOVEMBER 1995

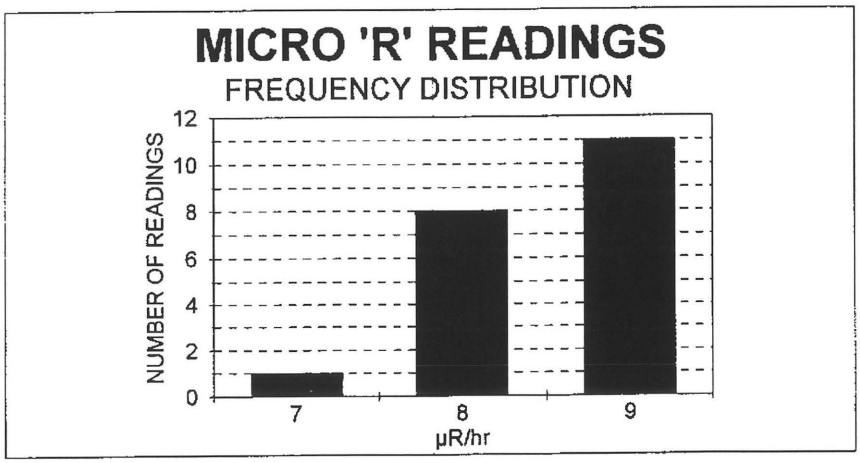




NUMBER OF READINGS	20
AVERAGE READING	3391
MINIMUM READING	2850
MAXIMUM READING	3990
STANDARD DEVIATION	264

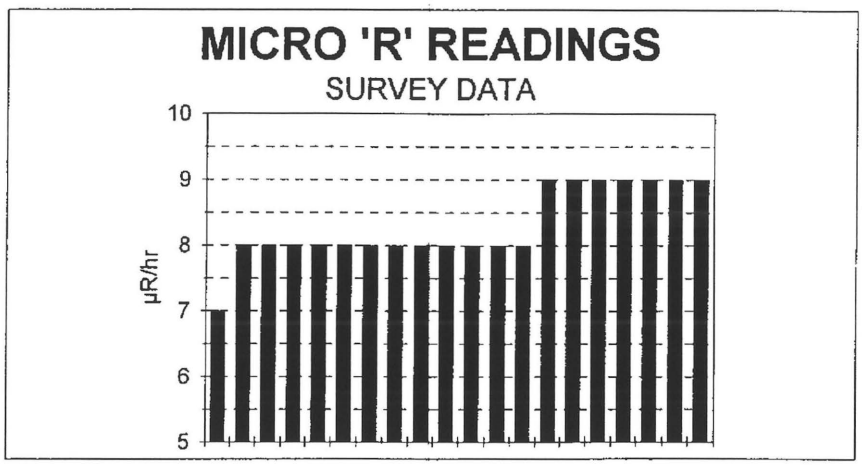
PHASE III - AREA L
BURIAL GROUND #2 OVERBURDEN
CIMARRON SOIL COUNTER
MICRO-R METER READINGS AT SURFACE
LUDLUM MODEL 19 S/N 111299
RESULTS IN µR/hr
NOVEMBER 1995

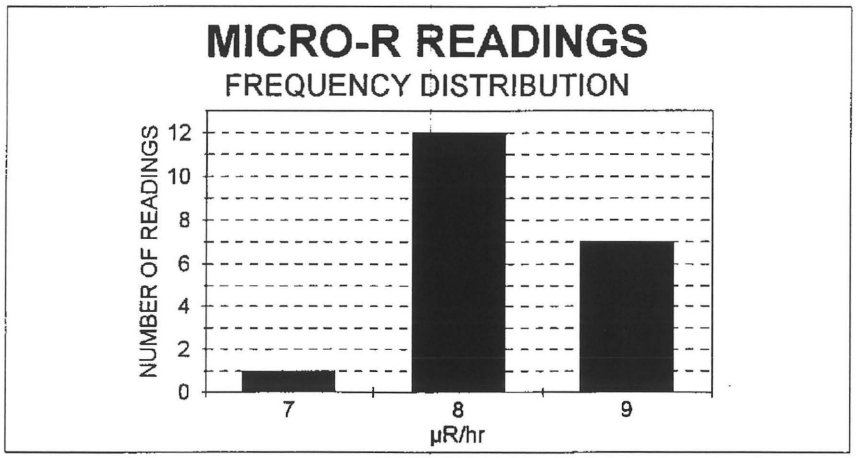




NUMBER OF READINGS	20
AVERAGE READING	9
MINIMUM READING	7
MAXIMUM READING	9
STANDARD DEVIATION	1

PHASE III - AREA L
BURIAL GROUND #2 OVERBURDEN
CIMARRON SOIL COUNTER
MICRO-R METER READINGS AT ONE METER ABOVE SURFACE
LUDLUM MODEL 19 S/N 111299
RESULTS IN µR/hr
NOVEMBER 1995





NUMBER OF READINGS	20
AVERAGE READING	8
MINIMUM READING	7
MAXIMUM READING	9
STANDARD DEVIATION	1

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L - OVERBURDEN)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
1	5	-3.8	14.30
2	8	-0.8	0.61
3	17	8.2	67.55
4	7	-1.8	3.17
5	9	0.2	0.05
6	6	-2.8	7.74
7	10	1.2	1.49
8	12	3.2	10.36
9	5	-3.8	14.30
10	5	-3.8	14.30
11	6	-2.8	7.74
12	5	-3.8	14.30
13	12	3.2	10.36
14	7	-1.8	3.17
15	7	-1.8	3.17
16	8	-0.8	0.61
17	7	-1.8	3.17
18	12	3.2	10.36
19	14	5.2	27.24
20	18	9.2	84.99
21	8	-0.8	0.61
22	11	2.2	4.92
23	9	0.2	0.05
24	10	1.2	1.49
25	10	1.2	1.49
26	6	-2.8	7.74
27	10	1.2	1.49
28	12	3.2	10.36
29	7	-1.8	3.17
30	11	2.2	4.92
31	9	0.2	0.05
32	9	0.2	0.05
33	10	1.2	1.49
34	6	-2.8	7.74
35	8	-0.8	0.61
36	6	-2.8	7.74
37	7	-1.8	3.17
38	18	9.2	84.99
39	7	-1.8	3.17
40	13	4.2	17.80
41	5	-3.8	14.30
42	4	-4.8	22.86
43	7	-1.8	3.17
44	6	-2.8	7.74
45	9	0.2	0.05
46	4	-4.8	22.86
47	8	-0.8	0.61
48	12	3.2	10.36
49	9	0.2	0.05
50	7	-1.8	3.17
	124		199.79
	0		0.00
	562		746.94
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x): 64

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N): 8.8

Standard Deviation (Sd) = SQRT $[(n-N)^2 \div (x-1)]$

Standard Deviation: 3.4

2 Std Deviations: 6.9

Degree of Freedom(df) = (x) - 1 Data listed on Table B-1

(df) = 1.670

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/(x)]

(Aμ) = 9.5 pCi/gU TOTAL U

GUIDELINE VALUE: 30.0 pCi/gU TOTAL U

Acceptable Level: 34.0 pCi/gU TOTAL U

(30 PLUS BACKGROUND)

TABLE B - 1

Factors for Comparision of Survey Data with Guidelines

(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

For values of Degrees of Freedom not listed:

Interpolate between the listed values.

(df) high value(Z)	120	is (B)	1.658	95%
(df) low value(Y)	60	is (A)	1.671	95%
Desired value(df) (X)	63	is calculated as follow:		

EXP[((Ln(B)-Ln(A)) ÷ (Z-Y)) (X-Y) + Ln(A)]

The (df) value for (X	63	1.670	95%

PERFORMED BY: Irving Powell DATE: 5-3-96

REVIEWED BY: W.A. Rogers DATE: 5-3-96

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L - OVERBURDEN)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
51	13	4.2	17.80
52	10	1.2	1.49
53	10	1.2	1.49
54	7	-1.8	3.17
55	5	-3.8	14.30
56	9	0.2	0.05
57	8	-0.8	0.61
58	7	-1.8	3.17
59	7	-1.8	3.17
60	5	-3.8	14.30
61	5	-3.8	14.30
62	20	11.2	125.86
63	9	0.2	0.05
64	9	0.2	0.05
65		0.0	0.00
66		0.0	0.00
67		0.0	0.00
68		0.0	0.00
69		0.0	0.00
70		0.0	0.00
71		0.0	0.00
72		0.0	0.00
73		0.0	0.00
74		0.0	0.00
75		0.0	0.00
76		0.0	0.00
77		0.0	0.00
78		0.0	0.00
79		0.0	0.00
80		0.0	0.00
81		0.0	0.00
82		0.0	0.00
83		0.0	0.00
84		0.0	0.00
85		0.0	0.00
86		0.0	0.00
87		0.0	0.00
88		0.0	0.00
89		0.0	0.00
90		0.0	0.00
91		0.0	0.00
92		0.0	0.00
93		0.0	0.00
94		0.0	0.00
95		0.0	0.00
96		0.0	0.00
97		0.0	0.00
98		0.0	0.00
99		0.0	0.00
100		0.0	0.00
	124		199.8
	Sum(n)		$Sum(n-N)^2$

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
101		0.0	0.00
102		0.0	0.00
103		0.0	0.00
104		0.0	0.00
105		0.0	0.00
106		0.0	0.00
107		0.0	0.00
108		0.0	0.00
109		0.0	0.00
110		0.0	0.00
111		0.0	0.00
112		0.0	0.00
113		0.0	0.00
114		0.0	0.00
115		0.0	0.00
116		0.0	0.00
117		0.0	0.00
118		0.0	0.00
119		0.0	0.00
120		0.0	0.00
121		0.0	0.00
122		0.0	0.00
123		0.0	0.00
124		0.0	0.00
125		0.0	0.00
126		0.0	0.00
127		0.0	0.00
128		0.0	0.00
129		0.0	0.00
130		0.0	0.00
131		0.0	0.00
132		0.0	0.00
133		0.0	0.00
134		0.0	0.00
135		0.0	0.00
136		0.0	0.00
137		0.0	0.00
138		0.0	0.00
139		0.0	0.00
140		0.0	0.00
141		0.0	0.00
142		0.0	0.00
143		0.0	0.00
144		0.0	0.00
145		0.0	0.00
146		0.0	0.00
147		0.0	0.00
148		0.0	0.00
149		0.0	0.00
150		0.0	0.00
	0		0.0
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L - OVERBURDEN)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N)²
1	2	0.22	0.05
2	2	0.22	0.05
3	2	0.22	0.05
4	2	0.22	0.05
5	2	0.22	0.05
6	2	0.22	0.05
7	2	0.22	0.05
8	2	0.22	0.05
9	2	0.22	0.05
10	1	-0.78	0.61
11	1	-0.78	0.61
12	2	0.22	0.05
13	1	-0.78	0.61
14	2	0.22	0.05
15	2	0.22	0.05
16	2	0.22	0.05
17	2	0.22	0.05
18	2	0.22	0.05
19	2	0.22	0.05
20	1	-0.78	0.61
21	1	-0.78	0.61
22	1	-0.78	0.61
23	2	0.22	0.05
24	2	0.22	0.05
25	1	-0.78	0.61
26	2	0.22	0.05
27	2	0.22	0.05
28	2	0.22	0.05
29	1	-0.78	0.61
30	2	0.22	0.05
31	1	-0.78	0.61
32	2	0.22	0.05
33	1	-0.78	0.61
34	2	0.22	0.05
35	2	0.22	0.05
36	2	0.22	0.05
37	2	0.22	0.05
38	2	0.22	0.05
39	2	0.22	0.05
40	2	0.22	0.05
41	2	0.22	0.05
42	2	0.22	0.05
43	2	0.22	0.05
44	1	-0.78	0.61
45	2	0.22	0.05
46	2	0.22	0.05
47	2	0.22	0.05
48	2	0.22	0.05
49	2	0.22	0.05
50	2	0.22	0.05
	25		2.36
	0		0.00
	114		10.94
	Sum(n)		Sum(n-N)²

No. of Samples (x) : 64

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.8

Standard Deviation (Sd) = SQRT [(n-N)² ÷ (x - 1)]

Standard Deviation: 0.4

2 Std Deviations: 0.8

Degree of Freedom(df) = (x) - 1 Data listed on Table B-1

(df) = 1.670

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/(x)]

(Aμ) = 1.9 pCi/gTh (NAT)

GUIDELINE VALUE: 10.0 pCi/gTh (NAT)

Acceptable Level: 4.0 pCi/gTh (NAT)

(25% OF GUIDELINE PLUS BACKGROUND)

TABLE B - 1

Factors for Comparision of Survey Data with Guidelines

(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

For values of Degrees of Freedom not listed:

Interpolate between the listed values.

(df) high value(Z)	120	is (B)	1.658	95%
(df) low value(Y)	60	is (A)	1.671	95%
Desired value(df) (X)	63	is calculated as follow:		

EXP[((Ln(B)-Ln(A)) ÷ (Z-Y)) (X-Y) + Ln(A)]

The (df) value for (X	63	1.670	95%

PERFORMED BY: Elvina Powell DATE: 5-3-96

REVIEWED BY: W.A. Rogers DATE: 5-3-96

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III - AREA-L - OVERBURDEN)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
51	2	0.22	0.05
52	2	0.22	0.05
53	2	0.22	0.05
54	1	-0.78	0.61
55	2	0.22	0.05
56	1	-0.78	0.61
57	2	0.22	0.05
58	1	-0.78	0.61
59	2	0.22	0.05
60	2	0.22	0.05
61	2	0.22	0.05
62	2	0.22	0.05
63	2	0.22	0.05
64	2	0.22	0.05
65		0.00	0.00
66		0.00	0.00
67		0.00	0.00
68		0.00	0.00
69		0.00	0.00
70		0.00	0.00
71		0.00	0.00
72		0.00	0.00
73		0.00	0.00
74		0.00	0.00
75		0.00	0.00
76		0.00	0.00
77		0.00	0.00
78		0.00	0.00
79		0.00	0.00
80		0.00	0.00
81		0.00	0.00
82		0.00	0.00
83		0.00	0.00
84		0.00	0.00
85		0.00	0.00
86		0.00	0.00
87		0.00	0.00
88		0.00	0.00
89		0.00	0.00
90		0.00	0.00
91		0.00	0.00
92		0.00	0.00
93		0.00	0.00
94		0.00	0.00
95		0.00	0.00
96		0.00	0.00
97		0.00	0.00
98		0.00	0.00
99		0.00	0.00
100		0.00	0.00
	25		2.4
	Sum(n)		$Sum(n-N)^2$

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
101		0.00	0.00
102		0.00	0.00
103		0.00	0.00
104		0.00	0.00
105		0.00	0.00
106		0.00	0.00
107		0.00	0.00
108		0.00	0.00
109		0.00	0.00
110		0.00	0.00
111		0.00	0.00
112		0.00	0.00
113		0.00	0.00
114		0.00	0.00
115		0.00	0.00
116		0.00	0.00
117		0.00	0.00
118		0.00	0.00
119		0.00	0.00
120		0.00	0.00
121		0.00	0.00
122		0.00	0.00
123		0.00	0.00
124		0.00	0.00
125		0.00	0.00
126		0.00	0.00
127		0.00	0.00
128		0.00	0.00
129		0.00	0.00
130		0.00	0.00
131		0.00	0.00
132		0.00	0.00
133		0.00	0.00
134		0.00	0.00
135		0.00	0.00
136		0.00	0.00
137		0.00	0.00
138		0.00	0.00
139		0.00	0.00
140		0.00	0.00
141		0.00	0.00
142		0.00	0.00
143		0.00	0.00
144		0.00	0.00
145		0.00	0.00
146		0.00	0.00
147		0.00	0.00
148		0.00	0.00
149		0.00	0.00
150		0.00	0.00
	0		0.0
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III - AREA L - BURIAL GROUND #2
OVERBURDEN

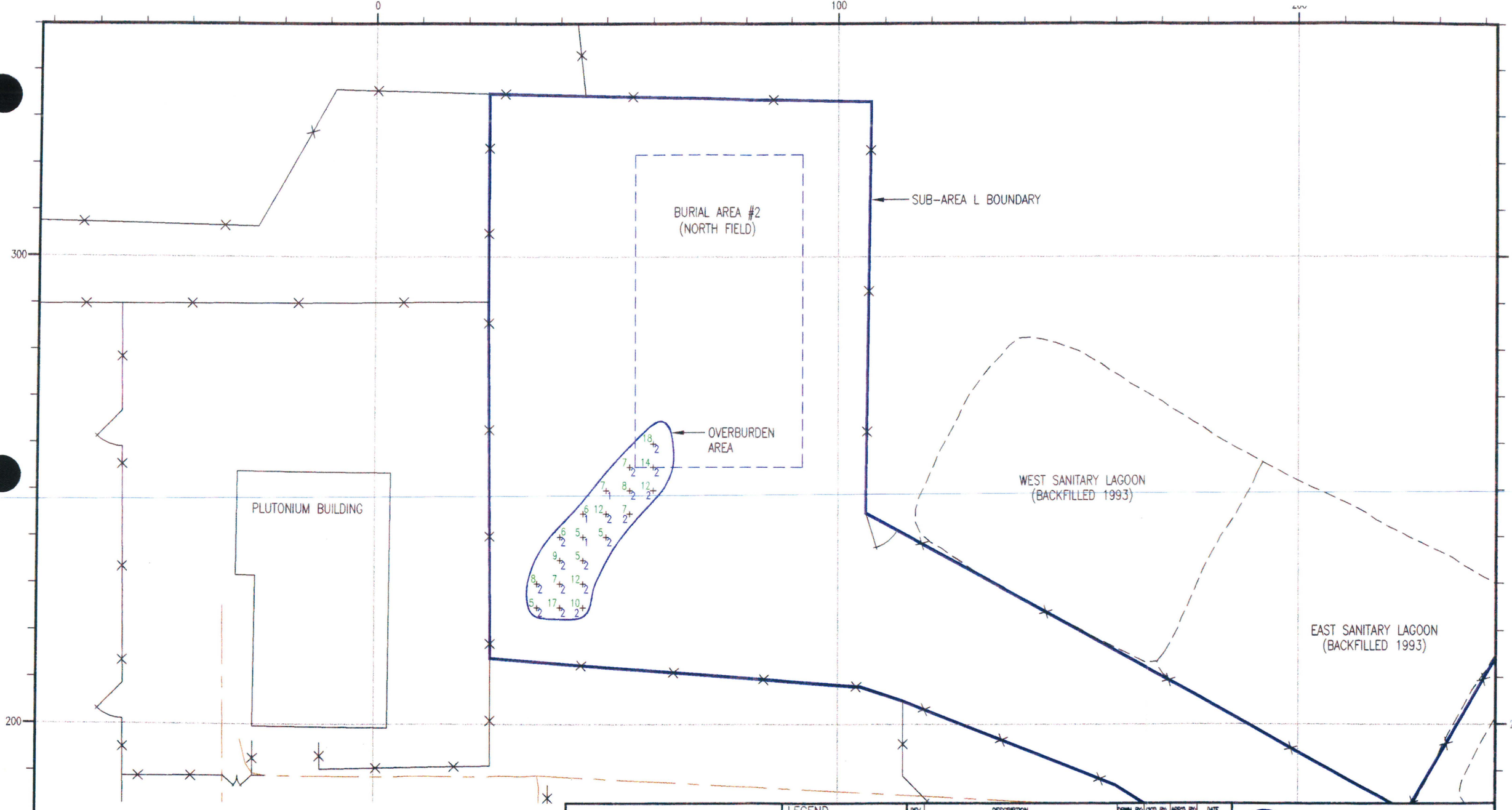
DATE: NOVEMBER 1995

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF.	pCi/g 0 - 6" Total-U	0 - 6" Th (Nat)	6" - 1' Total-U	6" - 1' Th (Nat)	1' - 2' Total-U	1' - 2' Th (Nat)	2' - 3' Total-U	2' - 3' Th (Nat)	3' - 4' Total-U	3' - 4' Th (Nat)	4' - 5' Total-U	4' - 5' Th (Nat)
1	35E - 225N	3400	8	9	5	2	8	1	5	2						
2	35E - 230N	3280	7	8	8	2	11	1	4	2	5	2				
3	40E - 225N	2850	8	8	17	2	9	1	7	2	9	1				
4	40E - 230N	3450	9	9	7	2	10	2	6	2	8	2				
5	40E - 235N	3380	9	9	9	2	10	2	9	1	7	1	9	2		
6	40E - 240N	3570	8	9	6	2	6	1	4	2	7	2				
7	45E - 225N	3990	8	9	10	2	10	2	8	2						
8	45E - 230N	3330	8	8	12	2	12	2	12	2						
9	45E - 235N	3410	9	9	5	2	7	2	9	2						
10	45E - 240N	2920	8	9	5	1	11	1	7	2	5	2				
11	45E - 245N	3500	8	9	6	1	9	2	13	2	5	2				
12	50E - 240N	3490	8	8	5	2	9	1								
13	50E - 245N	3270	8	9	12	2	10	2	10	2	20	2				
14	50E - 250N	3370	8	9	7	1	6	1	10	2	9	2				
15	55E - 245N	3730	9	8	7	2	8	2								
16	55E - 250N	3460	9	8	8	2	6	2	7	1						
17	55E - 255N	3540	9	8	7	2	7	2								
18	60E - 250N	2920	9	9	12	2	18	2								
19	60E - 255N	3640	8	7	14	2	7	2								
20	60E - 260N	3320	8	8	18	2	13	2								

INSTRUMENTS:	RESULTS IN	BACKGROUND	MDA
LUDLUM MICRO 'R' METER - MODEL19	µR/hr	7-10	7
LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR-S/N-11299	CPM	3100	N/A
	pCi/G	TOTAL U - 4	TOTAL U - 10
CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR-S/N-11299	pCi/G	Th (Nat) - 1.5	Th (Nat) - 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.a. Hogan DATE: 5-3-96



URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN ON 5 METER X 5 METER GRID.

LEGEND

- 6 + URANIUM 1 – 29 pCi/g U
- 58 + URANIUM 30 – 89 pCi/g U
- 129 + URANIUM > 90 pCi/g U
- +2 THORIUM 1 – 5 pCi/g Th

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	4/24/96				AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2 – OVERBURDEN
POST-REMEDIATION SOIL SAMPLE RESULTS (1995)
SOIL SAMPLE ALIQUOT: 0–6"

CLIENT DRAWING NO.

JOB NO.	DRAWING NO.	REV.
	953L20SS-0	0

M:\CIMARRON\BURIAL2\953L20SS

0

100

200

300

200

BURIAL AREA #2
(NORTH FIELD)

SUB-AREA L BOUNDARY

OVERBURDEN
AREA

PLUTONIUM BUILDING

WEST SANITARY LAGOON
(BACKFILLED 1993)

EAST SANITARY LAGOON
(BACKFILLED 1993)

13 7 7 6 6 18 9 10 8 6 11 9 10 7 11 10 12 8 9 10

20 0 20

SCALE IN METERS

NORTH

URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U AND 1.5 pCi/g Th, NOT SUBTRACTED.

SAMPLES TAKEN ON 5 METER X 5 METER GRID.

LEGEND

6 URANIUM 1 - 29 pCi/g U

58 URANIUM 30 - 89 pCi/g U

129 URANIUM > 90 pCi/g U

+2 THORIUM 1 - 5 pCi/g Th

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	WR	JK	5/15/96

DRWN. BY	DATE	CHKD. BY	DATE	APP'D. BY	SCALE:
JE	4/24/96				AS SHOWN

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE III, SUB-AREA L
BURIAL AREA #2 - OVERBURDEN
POST-REMEDIATION SOIL SAMPLE RESULTS (1995)
SOIL SAMPLE ALIQUOT: 6"-1'

CLIENT DRAWING NO.

JOB NO.

DRAWING NO. 953L20SS-1

REV. 0

M:\CIMARRON\BURIAL2\953L20SS