FINAL

# FORMER NATIONAL ZINC SITE
# BROWNFIELDS TARGETED ASSESSMENT (BTA)
## VOLUME IV of V
## APPENDIX D-G

**KDHE Identification Number: C3-063-0026**
**EPA Identification Number (CERCLIS): KSD980406698**

BER SCANNED
JUL 30 2013

**Kansas Department of Health and Environment**
**Bureau of Environmental Remediation**
**Remedial Section/Site Assessment Unit**
**Forbes Field, Building 740**
**Topeka, Kansas 66620**

**February, 2000**

# FORMER NATIONAL ZINC SITE

# BROWNFIELDS TARGETED ASSESSMENT (BTA)

**KDHE Identification Number**
**C3-063-0026**

**February, 2000**


**KDHE/BER Site Assessment Project Manager:**

Randolph L. Brown, Environmental Geologist

**Site Reconnaissance and Field Activities:**

Randolph L. Brown, Environmental Geologist
Farrell Dallen, Environmental Scientist
Laura Rand, Environmental Scientist
Jeff Neel, Environmental Scientist
Tom Jones, Environmental Geologist
John Cregan, Environmental Technician
James Peterson, Environmental Technician
Mike LaBuda, Environmental Technician

**Data Validation by:**
Travis Kogl, Environmental Geologist

# NATIONAL ZINC SITE
# CHERRYVALE, KANSAS

## APPENDIX D

## Field Sheets for XRF Field Analysis

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 5-26-99 Site Name: National Zn BTA Operator Name: F Dallas

System Check, Warm-Up and Internal Calibration Notes:
15 min warming

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60S ~ 2 min

| Sample I.D. # | Run # | Pb (mg/kg) | As (mg/kg) | |
|---|---|---|---|---|
| Low STD | 101 | <75 | | |
| High STD | 102 | 5593 ± 235 | 487 ± 213 | |
| S1 N5000 E2000 | 103 | 290 ± 50 | | |
| S2 N5000 E2010 | 104 | 504 ± 62 | | |
| S3 | 105 | 875 ± 80 | | |
| S4 | 106 | 7686 ± 249 | | Very wet on surface |
| S5 | 107 | 538 ± 61 | | |
| S7 | 108 | 1444 ± 102 | | |
| S6 | 109 | 5427 ± 260 | | |
| S6 Dup Lead | 110 | 5651 ± 237 | | |
| High STD | 111 | 5564 ± 231 | | |
| S14 | 112 | 470 ± 60 | | |
| S15 | 113 | 8434 ± 338 | | |
| S16 | 114 | 4531 ± 180 | | |
| S18 | 115 | 613 ± 79 | | |
| S13 | 116 | 882 ± 71 | | |
| S9 | 117 | 1168 ± 94 | | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 5-26-99 Site Name: National Zn BTA Operator Name: F Dallen

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time:____

| Sample I.D. # | Run # | Pb (mg/kg) | As (mg/kg) | |
|---|---|---|---|---|
| S8 | 118 | 5734 ± 262 | | |
| S9 Dup Read | 119 | 1136 ± 92 | | |
| High STD | 120 | 5555 ± 233 | | |
| S10 | 121 | 6291 ± 242 | | |
| S11 | 122 | 480 ± 58 | | |
| S12 | 123 | 4704 ± 241 | | |
| S16 Dup Read | 124 | 4771 ± 183 | | |
| S17 | 125 | 136 ± 44 | | |
| Med STD | 126 | 1134 ± 96 | <142 | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 6-3-99 Site Name: National Zn BTA Operator Name: Farrell Dallas

System Check, Warm-Up and Internal Calibration Notes:
15 min warm up

In-situ readings? Y ___ N X If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:
dried, ground & sieved through #60 sieve

Method 6200 Utilized? Y X N ___ Run Time: 60s ~ 2min

| Sample I.D. # | Run # | Pb (mg/kg) | As (mg/kg) | |
|---|---|---|---|---|
| High STD | 130 | 5427 ± 234 | 689 ± 214 | sampl 0-1" from surface |
| S1 | 131 | 293 ± 59 | | |
| S2 | 132 | 391 ± 63 | | |
| S3 | 133 | 274 ± 64 | | |
| S4 | 134 | 27.2K ± 943 | | |
| S5 | 135 | 375 ± 62 | | |
| S6 | 136 | 15.9K ± 596 | | |
| Med STD | 137 | 1111 ± 91 | < 138 | |
| S6 Dup Read | 138 | 15.4K ± 582 | | |
| S7 | 139 | 833 ± 77 | | |
| S8 | 140 | 670 ± 79 | | |
| S9 | 141 | 578 ± 74 | | |
| S10 | 142 | 16.9K ± 642 | | |
| S11 | 143 | 1000 ± 90 | | |
| S12 | 144 | 6409 ± 259 | | |
| High STD | 145 | 5366 ± 232 | 576 ± 212 | |
| recalibrate | | | | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 6-3-99 Site Name: National Zinc Operator Name: PD

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time:_____

| Sample I.D. # | Run # | Pb (mg/kg) | As (mg/kg) | |
|---|---|---|---|---|
| High STD | 147 | 5328 ± 229 | | |
| S13 | 148 | 757 ± 75 | | |
| S13 Dup Read | 149 | 808 ± 78 | <116 | |
| S14 | 150 | 393 ± 60 | <90 | |
| S15 | 151 | 21.2K ± 864 | <776 | |
| S16 | 152 | 9990 ± 365 | <422 | |
| S17 | 153 | 161 ± 55 | <79 | |
| S18 | 154 | 1045 ± 94 | <142 | |
| Med STD | 155 | 1180 ± 95 | <144 | |
| S17 Deep | ~~<70~~ 156 | <70 | <66 | Deep Smpl – 5"–6" for Smpl |
| S14 Deep | 157 | 160K ± 9254 | 4912 ± 2056 | |
| S6 Deep | 158 | 114K ± 9241 | <3295 | |
| S15 Deep | 159 | 61.2K ± 3745 | <1981 | |
| S11 Deep | 160 | 13.8K ± 550 | <572 | |
| S15 Dup Smpl | 161 | 21.01K ± 852 | <763 | |
| High STD | 162 | 5612 ± 238 | 637 ± 216 | |
| Low STD | 163 | <75 | <69 | |

National Zinc BTA 6-3-99 reading prep sample

| Sample ID | XRF # | Pb | As |
|---|---|---|---|
| High STD | 130 | 5427 ± 234 | 689 ± 214 |
| S1 | 131 | 293 ± 59 | |
| S2 | 132 | 291 ± 63 | |
| S3 | 133 | 274 ± 64 | |
| S4 | 134 | 27.2k ± 943 | |
| S5 | 135 | 375 ± 62 | |
| S6 | 136 | 15.9k ± 596 | |
| Med STD | 137 | 1111 ± 91 | <138 |
| S6 Dup Read | 138 | 15.4k ± 582 | |
| S7 | 139 | 833 ± 77 | |
| S8 | 140 | 670 ± 79 | |
| S9 | 141 | 578 ± 74 | |
| S10 | 142 | 16.9k ± 642 | |
| S11 | 143 | 1006 ± 90 | |
| S12 | 144 | 6409 ± 259 | |
| High STD | 145 | 5366 ± 232 | 576 ± 212 |
| Recalibrat. | | | |
| High STD | 147 | 5328 ± 229 | |
| S13 | 148 | 757 ± 75 | |
| S13 Dup Rd | 149 | 868 ± 78 | <116 |
| S14 | 150 | 393 ± 60 | <90 |
| S15 | 151 | 21.2k ± 864 | <776 |
| S16 | 152 | 9990 ± 365 | <422 |
| S17 | 153 | 161 ± 55 | <79 |
| S18 | 154 | 1045 ± 94 | <142 |
| Med STD | 155 | 1180 ± 95 | <144 |
| S17 Deep | 156 | <70 | <66 |
| S 1 Deep | 157 | 160K ± 9254 | 4912 ± 2056 |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 5-16-99 Site Name: [illegible] Operator Name: F. [illegible]

System Check, Warm-Up and Internal Calibration Notes:
~16 min

In-situ readings? Y ___ N X If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:
EPA Method 6200 prep sample - air dry, grind, pass [illegible] #60 sieve

Method 6200 Utilized? Y X N ___ Run Time: 60 sec
sample coll 5-26-99 prep 6-11 [illegible] 6-21-99

| Sample I.D. # | Run # | Pb (mg/kg) | As (mg/kg) | |
|---|---|---|---|---|
| High Std | 166 | 5427 ± 7.3 | 5865 ± 9.4 | |
| SR | 167 | 717 ± 76 | <115 | |
| Blk | 168 | <43 | <42 | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7.7.99 Site Name: National Zinc BTA Operator Name: Farrell Pellen

System Check, Warm-Up and Internal Calibration Notes:
15min initial warm up

In-situ readings? Y ✓ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60 sec

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 170 | 5625 ± 238 | |
| N5100 E7000 | 171 | 28.2K ± 1103 | |
| N5100 E6900 | 172 | 180 ± 61 | |
| N5000 E6900 | 173 | 111 ± 53 | |
| N5000 E6800 | 174 | < 79 | |
| N5000 E6700 | 175 | 134 ± 52 | |
| N5000 E6600 | 176 | 7264 ± 344 | |
| N5100 E6600 | 177 | 134 ± 43 | |
| N5200 E6500 | 178 | 206 ± 53 | |
| N5200 E6500 | 179 | 99 ± 37 | |
| N5200 E6600 | 180 | 167 ± 52 | |
| P48 N5200 E6600 | 181 | 211 ± 52 | |
| Mid STD | 182 | 1061 ± 92 | |
| N5200 E6700 | 183 | ~~377 ± 24~~ FD | 237 ± 52 |
| N5100 E6700 | 184 | 267 ± 61 | |
| N5100 E6800 | 185 | 248 ± 67 | |
| N5200 E6800 | 186 | 752 ± 90 | |
| 58 | 187 | 557 ± 79 | South of N5200 E6900 ~45' |
| N5000 E7000 | 188 | | Hand sliped road - stopped + |
| N5000 E7000 | 189 | 307 ± 62 | 189 start & stop FD |
| N5000 E7100 | 191 | 1768 ± 124 | |
| N5000 E7190 | 192 | 2462 ± 139 | |
| High STD | 193 | 5363 ± 226 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-7-94 Site Name: National Zinc BTA Operator Name: E Dallas
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60

| | Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|---|
| Dup | N5000E7100 | 194 | 2576±143 | |
| | N5000E7300 | 195 | 126±58 | |
| | N5000E7400 | 196 | 126±49 | |
| | N5000E7500 | 197 | <57 | |
| | N5000E7640 | 198 | 99±50 | N5000 E7640 on RR ballast |
| | N5100E7500 | 199 | 205±55 | |
| | N5100E7400 | 200 | 186±51 | |
| | N5200E7400 | 201 | 271±52 | |
| | N5100E7300 | 202 | 151±54 | |
| | N5100E7200 | 203 | 1084±109 | |
| | N5100E7100 | 204 | 442±72 | |
| Dup | N5100E7100 | 205 | 461±72 | |
| | High STD | 206 | 5596±202 | read in shale |
| | N5200E7100 | 207 | 254±64 | |
| | N5200E7200 | 208 | 351±61 | |
| | N5200E7300 | 209 | 341±54 | |
| | N5300E7400 | 210 | 252±56 | ground wet |
| | N5300E7300 | 211 | 95.6±61 | |
| | N5300E7200 | 212 | 101±54 | |
| | N5300E7100 | 213 | 516±74 | |
| | N5200E7000 | 214 | 534±65 | |
| | N5300E7000 | 215 | 791.6±336 | |
| | N5300E6800 | 216 | 645±70 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| Med STD | 217 | [illegible] | |
| N5300E6000 | 218 | 637±66 | |
| N5300E6100 | 219 | 233±27 | |
| High STD | 220 | 5422±235 | |
| Low STD | 221 | -273 | Low battery replaced battery, re-calibration |
| | | | |
| High STD | 223 | 5972±252 | |
| N5300E6200 | 224 | 195±61 | |
| N5300E6300 | 225 | 49±34 | |
| N5300E6400 | 226 | 167±38 | |
| N5300E6500 | 227 | 1982±77 | |
| N5400E6700 | 228 | 108±39 | |
| N5400E6800 | 229 | 135±52 | |
| N5400E6900 | 230 | 176±65 | |
| N5400E7000 | 231 | 381±72 | |
| Med STD | 232 | 1065±84 | |
| N5400E7100 | 233 | 335±67 | |
| N5400E7200 | 234 | 240±46 | |
| N5400E7300 | 235 | 276±69 | |
| N5400E7400 | 236 | 182±52 | |
| N5400E7500 | 237 | 3[illegible]±[illegible] | |
| N5400E7600 | 238 | 49±[illegible] | |
| N5400E7700 | 239 | [illegible] | [illegible] |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-7-[illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: [illegible]

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | [illegible] | 279 | |
| [illegible] | [illegible] | [illegible] | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]

System Check, Warm-Up and Internal Calibration Notes:
[illegible]

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ (In-situ)

Run Time: 60 sec - Screening, [illegible]

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7637 E7755 | 245 | 1235 | 30 sec run |
| High Stg | 246 | 5523 ± 233 | 60 sec run |
| N7637 E7755 | 247 | <93 | " " " |
| * N7500 E7600 | 248 | ND | " " " |
| N7500 E7700 | 249 | <76 | " " " |
| N7500 E7500 | 250 | <88 | " " " |
| N7400 E7500 | 251 | <88 | " " " |
| N7300 E7500 | 252 | <80 | " " " |
| N7200 E7500 | 253 | <68 | " " " |
| N7100 E7500 | 254 | <88 | " " " |
| N7000 E7500 | 255 | <86 | " " " |
| N6900 E7500 | 256 | <110 | [illegible] |
| N6900 E7500 | 257 | ND | 2nd Dup |
| Med Std | 258 | 1175 ± 95 | |
| High Stg | 259 | 5472 ± 232 | |
| Med Std | 260 | 1155 ± 97 | |
| | | | [illegible] |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 02/14/09 Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:
Started 0658 [illegible] calibrated [illegible]

In-situ readings? Y ✓ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ✓ N ___ (in-situ used) Run Time: ____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| HighSTD | 262 | 5318±74 | 60sec |
| N6800E 7500 | 263 | <76 | " " |
| N6700E 7500 | 264 | <72 | " " |
| — | 265 | — | [illegible] |
| N6600E 7500 | 266 | <72 | 60sec |
| N6600E 7400 | 267 | 394±65 | " " |
| N6500E 7400 | 268 | 357±89 | " " |
| N6600E 7300 | 269 | 293±58 | " " |
| N6500E 7400 | 270 | 744±71 | " " |
| N6500E 7300 | 271 | 602±77 | " " |
| N6500E 7200 | 272 | 723±95 | " " |
| N6500E 7100 | 273 | 867±84 | " " |
| N6500E 7000 | 274 | 402±158 | 15sec |
| N6500E 7000 | 275 | 321±62 | 60sec |
| HighSTD | 276 | 5800±232 | 60sec |
| Recal | 277 | 0.0 | Internal |
| LowSTD | 278 | ND | 60sec |
| LowSTD | 279 | <NR | 27sec |
| MedSTD | 280 | 1191±96 | 60sec |
| N6500E 6900 | 281 | 1001±96 | " " |
| N6500E 6800 | 282 | 2139±155 | " " Trace debris |
| N6500E 6700 | 283 | <71 | " " |
| N6500E 6600 | 284 | 9[illegible]±101 | 25 [illegible] |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N ___ [illegible] Run Time: ____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6500E6500 | 283 | 857±74 | [illegible] |
| N6600E6600 | 284 | 1051±44 | 6056 |
| N6600E6500 | 287 | 462±65 | [illegible] 6056 |
| N6600E6600 | 288 | [illegible] | [illegible] 6056 |
| N6700E6500 | 289 | 1551±54 | |
| N6700E6600 | 290 | <81 | |
| N6700E6700 | 291 | 87±43 | [illegible] |
| N6800E6500 | 292 | [illegible] | |
| N6800E6600 | 293 | <59 | |
| N6800E6700 | 294 | 276±63 | |
| N6800E6800 | 295 | 710±41 | |
| N6900E6500 | 296 | 54±71 | [illegible] |
| N6900E6600 | 297 | 68±8 | |
| N6900E6700 | 298 | <71 | |
| N6900E6800 | 299 | 232±63 | |
| N6900E6900 | 300 | 474±46 | [illegible] |
| N7000E6700 | 301 | <67 | 6056 |
| Me2500 | 302 | 1232±96 | [illegible] 6056 |
| START | | | On 13,4 Warming Main |
| Cal | 303 | 0.0 | 10.3V |
| [illegible] | [illegible] | 5623±[illegible] | 6056 |
| N6700E7[illegible] | 305 | <66 | " |
| N6900E7[illegible] | [illegible] | 69,02±74 | " |

pg [illegible] of ___

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N ___ [illegible] Run Time:_____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6700E7200 | 307 | ND | 6 [illegible] |
| N6700E710 | 308 | <70 | " |
| N6700E7000 | 309 | <70 | " |
| N6700[illegible] | 310 | [illegible] | [illegible] |
| N6700E6900 | 311 | <74 | 6 [illegible] |
| N6700E6800 | 312 | <65 | |
| N6700E6600 | 313 | <71 | |
| N6800E6600 | 314 | <66 | " |
| N6800E6400 | 315 | <63 | " |
| HighSTD | 316 | [illegible] | " |
| Recal | 317 | Pb0.0 | 10.2V |
| MedSTD | 318 | 109±95 | [illegible] |
| N6800E6700 | 319 | <63 | " |
| N6800E6800 | 320 | <67 | " |
| N6800E6900 | 321 | <61 | Hot! |
| N6800E7000 | 322 | <73 | " |
| N6800E7000 | 323 | <73 | " Dup |
| N6800E7100 | [illegible] | ND | |
| N6800E7200 | 324 | ND | " |
| N6800E7300 | [illegible] | ND | " |
| N6800E7400 | [illegible] | ND | " |
| N6800E7500 | [illegible] | ND | " |
| N6800E7600 | [illegible] | 104±93 | " |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ___ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ [illegible] Run Time:_____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | 329 | ND | [illegible] |
| [illegible] | 330 | <61 | |
| [illegible] | [illegible] | <70 | |
| [illegible] | [illegible] | [illegible] | |
| [illegible] | 333 | ND | |
| [illegible] | 334 | ND | [illegible] |
| [illegible] | [illegible] | <69 | [illegible] |
| [illegible] | [illegible] | ND | |
| [illegible] | [illegible] | <66 | " |
| [illegible] | [illegible] | <62 | " |
| MeLSTD | 339 | [illegible] | " |
| Recal | 340 | 100.0 | |
| Recal | 341 | 100.0 | |
| [illegible] | 342 | [illegible] | |
| [illegible] | 343 | <62 | |
| [illegible] | 344 | <68 | |
| [illegible] | 345 | <94 | |
| [illegible] | 346 | <77 | " |
| [illegible] | 347 | <65 | [illegible] |
| [illegible] | 348 | <66 | |
| [illegible] | [illegible] | <65 | [illegible] |
| [illegible] | 35 | <71 | |
| [illegible] | 351 | [illegible] | [illegible] |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 07/[illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N ___ (Incorrect / w/ sieve) Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| Food Grade | 354 | <68 | |
| High STD | 355 | 548 ± 33 | |
| | | | |
| | | | [illegible] |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:
[illegible]

In-situ readings? Y [illegible] N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y [illegible] N ___ [illegible] Run Time:_____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| Co.1 | 35[illegible] | [illegible] | |
| [illegible] | 35[illegible] | [illegible] | 60 Sec |
| [illegible] | [illegible] | <[illegible] | " |
| [illegible] | [illegible] | [illegible] | " |
| [illegible] | [illegible] | <[illegible] | " |
| [illegible] | [illegible] | [illegible] | " |
| [illegible] | [illegible] | <[illegible] | " |
| [illegible] | 363 | [illegible] | " |
| [illegible] | 3[illegible] | <[illegible] | " |
| [illegible] | 36[illegible] | [illegible] | " |
| [illegible] | 3[illegible] | <68 | " |
| [illegible] | 36[illegible] | [illegible] | " |
| [illegible] | 36[illegible] | <[illegible] | " |
| [illegible] | 3[illegible] | [illegible] | [illegible] |
| [illegible] | 3[illegible] | [illegible] | " |
| [illegible] | 3[illegible] | <39 | " |
| [illegible] | 3[illegible] | <68 | " |
| [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 3[illegible] | [illegible] | 60 Sec |
| [illegible] | [illegible] | <[illegible] | " |
| [illegible] | [illegible] | <[illegible] | |
| [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | |
| [illegible] | 3[illegible] | <[illegible] | |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | 380 | ND | [illegible] |
| [illegible] | 381 | [illegible] | |
| | | | Charge Battery [illegible] |
| | | | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 383 | [illegible] | [illegible] |
| [illegible] | [illegible] | <70 | " |
| N7300 E7300 | 385 | ND | " |
| N7300 E7400 | 386 | <65 | " |
| N7300 E7500 | 387 | <70 | |
| N7300 E7600 | 388 | ND | " |
| N7300 E7700 | 389 | <87 | [illegible] |
| N7300 E7800 | 390 | <75 | Chge |
| N7300 E7900 | [illegible] | [illegible] | [illegible] |
| N7300 E8000 | 392 | ND | " |
| N7300 E8100 | 393 | ND | " |
| N7300 E8200 | 394 | ND | " |
| N7300 E8300 | 395 | <67 | " |
| [illegible] | 396 | [illegible] | [illegible] |
| N7400 E8500 | 397 | <66 | " |
| N7400 E8600 | 398 | <68 | " |
| N7400 E8700 | 399 | [illegible] | |
| N7400 E8800 | [illegible] | <[illegible] | |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ✓ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ✓ N ___ Run Time: ____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] |
| N7000 E[illegible] | [illegible] | <7[illegible] | [illegible] |
| N7400 E[illegible] | [illegible] | 180±[illegible] | [illegible] |
| [illegible] | 404 | [illegible] | [illegible] |
| N7[illegible] E[illegible] | 405 | <60 | [illegible] |
| N7400 E[illegible] | [illegible] | 16[illegible] | [illegible] |
| [illegible] | [illegible] | 75±46 | [illegible] |
| [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | 10[illegible] |
| [illegible] | [illegible] | 116[illegible] | [illegible] |
| N7500 E[illegible] | [illegible] | ND | [illegible] |
| N7500 E[illegible] | [illegible] | <6[illegible] | [illegible] |
| N7500 E[illegible] | [illegible] | [illegible] | [illegible] |
| N7500 E[illegible] | [illegible] | <67 | [illegible] |
| N7[illegible] | 416 | [illegible] | [illegible] |
| N7500 E[illegible] | [illegible] | ND | [illegible] |
| [illegible] | [illegible] | <6[illegible] | [illegible] |
| [illegible] | [illegible] | ND | [illegible] |
| [illegible] | [illegible] | <70 | |
| N7[illegible] | [illegible] | <70 | [illegible] |
| N7[illegible] | [illegible] | <6[illegible] | [illegible] |
| N7[illegible] | [illegible] | <[illegible] | |
| N7[illegible] E[illegible] | [illegible] | [illegible] | |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: ____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | 425 | <75 | |
| [illegible] | 426 | <81 | [illegible] |
| [illegible] | [illegible] | [illegible] | |
| | | | Shutdown [illegible] 1245 |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-20-99 Site Name: National Zinc BTA Operator Name: F Pallen

System Check, Warm-Up and Internal Calibration Notes:
0125 min

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60 sec

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High Std | 429 | 5347 ± 234 | |
| N7500 E6400 | 430 | <93 | |
| N7400 E6400 | 431 | <80 | |
| N7300 E6400 | 432 | <105 | |
| N7200 E6400 | 433 | <93 | |
| N7100 E6400 | 434 | <110 | |
| N7000 E6400 | 435 | | Released [illegible] (437 - [illegible]) |
| N7000 E6400 | 437 | <136 | |
| N6900 E6400 | 438 | <77 | |
| N6800 E6400 | 439 | 223 ± 70 | |
| N6500 E6400 | 440 | 114 ± 65 | Dirt Road |
| Mel STD | 441 | 1168 ± 94 | |
| N6700 E6400 | 442 | 162 ± 59 | |
| N6600 E6300 | 443 | 3808 ± 205 | |
| N6700 E6300 | 444 | 1221 ± 115 | |
| N6800 E6300 | 445 | 990 ± 86 | |
| N6900 E6300 | 446 | 190 ± 63 | |
| N7000 E6300 | 447 | 76.6 ± 49 | |
| N7100 E6300 | 448 | 114 ± 65 | |
| N7200 E6300 | 449 | <68 | |
| N7300 E6300 | 450 | <84 | |
| N7400 E6300 | 451 | <90 | 45 sec [illegible] |
| N7500 E6300 | 452 | <97 | |

High Std 5532 ± 80

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-24-14 Site Name: National Zinc BTA Operator Name: E Pallen
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 605

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 453 | 5808±243 | |
| Recal | | | |
| High STD | 455 | 5100±236 | |
| N7500E6200 | 456 | <98 | |
| N7400E6200 | 457 | <111 | |
| N7300E6200 | 458 | <80 | |
| N7200E6200 | 459 | <78 | |
| N7100E6200 | 460 | 109±64 | |
| N7000E6200 | 461 | 214±64 | |
| N6900E6200 | 462 | 652±87 | chopped 2-4", stoves roots |
| N7000E6077 | 463 | 1052±92 | diff to read E 6077? |
| N7100E6100 | 464 | 164±62 | |
| Med STD | 465 | 1144±62 | 96 |
| N7100E6100 | 466 | 91±60 | Dup reading |
| N7200E6100 | 467 | <87 | |
| N7300E6100 | 468 | <98 | 455 read |
| N7400E6100 | 469 | <71 | |
| N7500E6100 | 470 | <104 | released th. trigger |
| N7500E6100 | 471 | <78 | |
| N7639E6000 | 472 | <70 | |
| N7500E6000 | 473 | <72 | |
| Recal | | | Instrument Quit - too hot? Bat. 10.1V |
| High Std | 477 | 5420±234 | Bat. 10.0 V |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-20-99 Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ___ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: [illegible]

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7100E6000 | 478 | <98 | |
| N7300E6000 | 479 | 26.325 | |
| N7200E6000 | 480 | 2942.44 | |
| N7100E6000 | 481 | 2152.57 | Chopped Thru 3-4" of Rock |
| N7000E6000 | 482 | 1372.64 | |
| N7000E5900 | 483 | <102 | |
| N7100E5900 | 484 | <7 | |
| N7200E5900 | 485 | 2052.52 | |
| N7300E5900 | 486 | 1893.62 | heavy vegetation |
| N7300E5900 | 487 | 7752.61 | Dry Road |
| N7400E5900 | 488 | <80 | |
| N7500E5900 | 489 | <102 | <603 |
| Med STD | 490 | 11247.95 | 8940 |
| Low STD | 491 | <76 | |
| N7500E5800 | 492 | <87 | |
| N7400E5800 | 493 | 2562.62 | |
| N7300E5800 | 494 | 1192.55 | |
| N7200E5800 | 495 | 1592.57 | |
| N7100E5800 | 496 | 1312.59 | |
| | 497 | | XRF Quit |
| Recal | | | |
| N7000E5800 | 500 | <102 | <663 real time |
| [illegible] | 501 | [illegible] | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: F. Dille

System Check, Warm-Up and Internal Calibration Notes:
~35 min Warm up

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 605

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 503 | 5500±234 | |
| N7500 E5700 | 504 | 161±52 | |
| N7400 E5700 | 505 | <95 | |
| N7300 E5700 | 506 | 121±73 | 405 reading |
| N7200 E5700 | 507 | 132±65 | |
| N7100 E5700 | 508 | <126 | |
| N7000 E5700 | 509 | 284±64 | |
| N7500 E5600 | 510 | 107±49 | |
| N7400 E5600 | 511 | 143±55 | |
| N7200 E5600 | 512 | <90 | |
| N7300 E5600 | 513 | <82 | |
| Mod STD | 514 | 1126±94 | |
| N7400 E5600 | 515 | 145±56 | |
| N7400 E5600 | 516 | 130±54 | Dup reading |
| N7500 E5600 | 517 | 109±49 | |
| N7500 E5500 | 518 | <85 | |
| N7400 E5500 | 519 | <101 | |
| N7300 E5500 | 520 | <80 | |
| N7200 E5500 | 521 | <83 | |
| N7100 E5500 | 522 | <82 | |
| N7000 E5500 | 523 | 119±58 | |
| High STD | 524 | 5408±231 | |
| N7000 E5500 | 525 | <92 | Dup reading |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-2-[illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6000E6000 | 526 | 92.7±53 | |
| N6100E6000 | 527 | 157±80 | |
| N6200E6000 | 528 | 693±85 | |
| N6300E6000 | 529 | <67 | |
| N6500E6000 | 530 | 149±54 | |
| N6500E6100 | 531 | <84 | |
| N6600E6100 | 532 | 128±56 | ~~state not in time with "E6100" line~~ |
| N6700E6100 | 533 | <97 | 45 Sec reading |
| N6800E6100 | 534 | <95 | |
| N6900E6100 | 535 | 238±64 | |
| Med STD | 536 | 1106±95 | |
| N6800E6200 | 537 | 436±83 | |
| N6800E6200 | 538 | 526±88 | Dup Reading |
| N6700E6200 | 539 | <86 | |
| N6600E6200 | 540 | 1064±86 | |
| N6500E6200 | 541 | 175±64 | |
| N6500E6300 | 542 | 81.3±52 | |
| N6600E6300 | 543 | 206±65 | |
| N6400E6000 | 544 | 159±62 | |
| N6300E6000 | 545 | <90 | 50 sec Read |
| N6200E6000 | 546 | 114±70 | |
| N6100E6000 | 547 | 92.8±53 | |
| High STD | 548 | 5263±233 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: E Dalton
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ___ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6000 E6000 | 549 | 98±35 | |
| N6000 E6100 | 550 | 76±50 | |
| N6000 E6150 | 551 | <68 | |
| N6240 E6000 | 552 | <110 | |
| N6300 E6100 | 553 | 167±73 | |
| N6300 E6100 | 554 | 135±69 | Dup Reading |
| N6400 E6100 | 555 | 182±64 | |
| N6400 E6200 | 556 | <75 | |
| N6300 E6200 | 557 | <91 | |
| N6100 E6200 | 558 | | related Pressure on XRF |
| N6200 E6300 | 560 | <90 | |
| N6100 E6200 | 561 | <104 | |
| N6100 E6300 | 562 | 1124±96 | |
| N6000 E6200 | 563 | 191±61 | |
| N6200 E6300 | 564 | 263±71 | |
| N6100 E6300 | 565 | <97 | |
| N6200 E6300 | 566 | 163±64 | |
| N6300 E6300 | 567 | <69 | |
| N6400 E6300 | 568 | 98±53 | |
| N6400 E6400 | 569 | 129±57 | |
| N6400 E6500 | 570 | 1552±94 | to catch |
| N6400 E6500 | 571 | 1587±136 | Dup Read 30 sec |
| N6300 E6500 | 572 | 164±61 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ Run Time: 180

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6200E6300 | 573 | 13±52 | |
| N6200 | 574 | 550±395 | |
| Mod STD | 575 | 1152±95 | |
| N6200E7100 | 576 | 291±61 | |
| N5600 E6900 | 577 | 208±75 | |
| N5600E6800 | 578 | 235±58 | |
| N5600E6700 | 579 | 115±65 | 45 sec |
| N5600E6600 | 580 | <57 | |
| N5600E6500 | 581 | 143±72 | 45 sec |
| N5700E6501 | 582 | 90.9±59 | 45 sec |
| N5700 E6600 | 583 | <114 | 45 |
| N5700 E6700 | 584 | <124 | 45 |
| N5700E6800 | 585 | <82 | 50 s |
| N5700E6900 | 586 | <116 | 30 s [illegible] |
| N5700 E7000 | 587 | 155±80 | [illegible] 45 s |
| High STD | 588 | 552±22 | |
| N5800E6900 | 589 | 141±67 | 45 s - [illegible] |
| N5800 E6800 | 590 | 105±64 | 50 s |
| N5800 E6700 | 591 | 268±63 | [illegible] 215±75 [illegible] |
| N5800 E6600 | 592 | 102±77 | 167±79 [illegible] 45 s |
| N5800E6500 | 593 | 93.8±59 | |
| N5900 E6600 | 594 | <85 | 45 s |
| N5900 E6500 | 595 | <90 | 50 |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: _____

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 605

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N5900 E6600 | 596 | <110 | 455 |
| N5900 E6700 | 597 | 95.9±59 | 455 |
| N5900 E6800 | 598 | 155±64 | 455 |
| Med STD | 599 | 1082±99 | |
| High STD | 601 | 5526±236 | Bat 10.2V |
| N6000 E6300 | 602 | 106±64 | 455 |
| N6000 E6700 | 603 | <112 | 455 |
| N6000 E6800 | 604 | <104 | 455 |
| N6100 E6300 | 605 | 161±67 | 455 |
| N6100 E6500 | 606 | 88.3±56 | Dup Read |
| N6100 E6600 | 607 | 211±72 | 455 |
| N6100 E6700 | 608 | 126±71 | 455 |
| N6100 E6800 | 609 | 2044±162 | RR Tracks 451 |
| N6200 E6700 | 610 | 357K±1468 | RR Tracks Area - blistered Ground |
| N6200 E6800 | 611 | 139±83 | 455 |
| N6300 E6600 | 612 | 896±101 | |
| N6300 E6600 | 613 | 808±99 | Dup Read 788 @ 455 |
| Med STD | 614 | 1056±93 | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-22-99 Site Name: National Zinc BTA Operator Name: E Pallas

System Check, Warm-Up and Internal Calibration Notes:
30 min Resolution 0.62 eV
See 3 pCi

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | 616 | 5400 ± 273 | |
| N5900 E7000 | 617 | 929 ± 70 | |
| N5800 E7000 | 618 | 162 ± 123 | |
| N5700 E7000 | 619 | 835 ± 95 | |
| N5200 E7000 | 620 | 3708 ± 177 | |
| N5300 E7000 | 621 | 662 ± 103 | 455 40% |
| N5400 E7000 | 622 | 528 ± 82 | 455 " |
| N5400 E7100 | 623 | 702 ± 103 | 455 " |
| N5300 E7100 | 624 | 457 ± 93 | 455 " |
| N5200 E7100 | 625 | 854 ± 83 | |
| N5200 E7100 | 626 | 857 ± 91 | Dup Read 455 |
| N5100 E7100 | 627 | 1537 ± 172 | |
| Low STD | 628 | < 62 | |
| Med STD | 629 | 1188 ± 96 | |
| N6000 E7100 | 630 | 4012 ± 176 | |
| N5900 E7100 | 631 | 161 ± 56 | |
| N5800 E7100 | 632 | 2904 ± 171 | |
| N5700 E7100 | 633 | 3096 ± 166 | 3169 @ 455 |
| N5600 E7100 | 634 | 652 ± 88 | |
| N5500 E7100 | 635 | 1740 ± 153 | |
| N5000 E7100 | 636 | 3616 ± 246 | |
| High STD | 637 | 5395 ± 230 | 5117 ± 271 @ 455 |
| N6100 E7100 | 638 | 1905 ± 144 | 1930 ± 169 @ 455 |

E7000

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ✓ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 60s

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6700 E7300 | 639 | 3792±179 | 3148±201 @ 45s |
| N6500 E7300 | 640 | 116±145 | 45s |
| N5400 E7300 | 641 | 1115±171 | 2000±195 @ 45s |
| N6400 E7300 | 642 | 1804±175 | Dup Reading 45s |
| N5900 E7300 | 643 | 2812±123 | 70s - [illegible] |
| N6300 E7300 | 644 | 1766±[illegible] | 45s |
| N6200 E7300 | 645 | [illegible] | 45s |
| N6100 E7300 | 646 | 3625±216 | 45s |
| N6000 E7300 | 647 | 7272±96 | 45s |
| N5900 E7300 | 648 | 7485±92 | 45s |
| Med BD | 649 | 1188±93 | 1164±105 @ 45s |
| N5800 E7300 | 650 | 3044±193 | 3024 @ 45s |
| N5700 E7300 | 651 | 5721±316 | 5766±351 @ 45s |
| N5600 E7300 | 652 | 3475±352 | 3475±345 @ 45s |
| N5500 E7400 | 653 | 1297±124 | 1290±142 @ 45s |
| N5600 E7400 | 654 | 3827±161 | 3789±129 @ 45s |
| N5700 E7400 | 655 | 5525±249 | 5577±346 @ 45s |
| N5800 E7400 | 656 | 1818±94 | 966±109 @ 45s |
| N5900 E7400 | 657 | 1166±90 | 1175±105 @ 45s Dup Read |
| High BD | 658 | 5468±332 | |
| N5900 E7400 | 659 | 395±91 | 45s |
| N6000 E7400 | 660 | 1681±147 | 45s |
| N6100 E7400 | 661 | 3[illegible]±261 | 45s |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: National Zinc BTA Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ___ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time:_____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| [illegible] | 662 | [illegible] | |
| [illegible] | 663 | [illegible] | 455 |
| [illegible] | 664 | [illegible] | 455 |
| N5800 E750 | 665 | [illegible] | 1545 ± 115 @ 455 |
| N5800 E750 | 666 | [illegible] | 455 |
| [illegible] | 667 | [illegible] | 455 |
| N5800 E750 | 668 | [illegible] | 455 |
| [illegible] | 669 | [illegible] | |
| N5900 E750 | 670 | [illegible] | 455 |
| N5900 E750 | 671 | [illegible] | 455 |
| N5900 E750 | 672 | [illegible] | Dup Read |
| N5900 E750 | 673 | [illegible] | 455 |
| N5900 E750 | 674 | [illegible] | 455 |
| N6000 E750 | 675 | [illegible] | 455 |
| N6000 E750 | 676 | [illegible] | 455 |
| N6000 E750 | 677 | [illegible] | 455 |
| N6000 E750 | 678 | [illegible] | 455 |
| N6000 E750 | 679 | [illegible] | 455 |
| | 680 | [illegible] | 455 Duplicate |
| N6000 E750 | 681 | [illegible] | 455 |
| N6000 E750 | 682 | [illegible] | 455 |
| N6000 E750 | 683 | [illegible] | 455 |
| [illegible] | 684 | [illegible] | |

pg 3 of 3

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: [illegible] Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:
[illegible]

Method 6200 Utilized? Y X N __ In-situ readings? Y X N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Cal | 685 | | 51 | Cal |
| High STD | 686 | 508 [illegible] | 60 | |
| N7000E5000 | 687 | 101±52 | 60 | [illegible] |
| N7000E5500 | 688 | ND | 60 | |
| N6900E5500 | 689 | ND | 60 | |
| N6800E5500 | 690 | 185±53 | 60 | |
| N6700E5500 | 691 | <74 | 60 | |
| N6600E5500 | 692 | <74 | 60 | [illegible] |
| N6500E5500 | 693 | 80±48 | [illegible] | |
| N6500E5500 | 694 | 167±69 | 40 | Shut off-high noise |
| N6500E5500 | 695 | 115±49 | 60 | Duplicate |
| N6500E5600 | 696 | <72 | 60 | |
| N6500E5600 | 697 | 101±51 | 60 | |
| High STD | 698 | 5500±233 | 60 | 698.2910 |
| Re Cal | 699 | | 51 | Res 0686 ok |
| Med STD | 701 | 113 | 60 | Rd 700-50 [illegible] 1020 |
| N6700E5600 | 702 | <76 | 60 | |
| N6800E5600 | 703 | 97.8±51 | 60 | |
| N6800E5600 | 704 | 95.7±50 | 60 | [illegible] |
| N6900E5600 | 705 | 259±55 | 60 | [illegible] slag |
| N6900E5700 | 706 | 373±93 | 60 | [illegible] |
| N6800E5700 | 707 | 193±54 | 60 | |
| N6700E5700 | 708 | 132±55 | 60 | |
| N6600E5700 | 709 | 168±51 | 60 | |
| N6500E5700 | 710 | 837±51 | | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: _____ Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

_____

_____

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

_____

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | | | | Warm-up [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | Res: [illegible] |
| [illegible] | [illegible] | [illegible] | 60 | |
| N6800E5800 | [illegible] | [illegible] | 60 | |
| [illegible] | [illegible] | ND | 60 | |
| [illegible] | 716 | ND | [illegible] | |
| [illegible] | 717 | [illegible] | [illegible] | |
| [illegible] | 718 | [illegible] | [illegible] | |
| [illegible] | 719 | [illegible] | 60 | [illegible] |
| N6700S800 | 720 | [illegible] | 60 | |
| N6600E5800 | [illegible] | [illegible] | 60 | |
| N6500E5800 | [illegible] | [illegible] | 60 | |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| N6600E5900 | [illegible] | <82 | 60 | |
| [illegible] | [illegible] | <77 | | |
| | [illegible] | [illegible] | | |
| | [illegible] | [illegible] | | |
| [illegible] | [illegible] | [illegible] | | |
| [illegible] | | | | |
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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: [illegible] Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:
[illegible]

Method 6200 Utilized? Y X N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Cal | 729 | 0.0 | 50s | Calibration |
| Med STD | 730 | 1040±90 | 60 | |
| N 6400 E5300 | 731 | 148±58 | 60 | |
| N 6300 E5500 | 732 | 167±55 | 60 | |
| N 6200 E5500 | 733 | 128±59 | 60 | |
| N 6100 E5500 | 734 | <73 | 60 | |
| N 6000 E5500 | 735 | [illegible] | 31 | [illegible] |
| N 6000 E5600 | 736 | 204±59 | 60 | |
| N 6000 E5700 | 737 | [illegible] | [illegible] | |
| N 6000 E5800 | 738 | 215±59 | 60 | |
| N 6200 E5800 | 739 | <73 | 60 | |
| N 6300 E5800 | [illegible] | 76±40 | 60 | |
| N 6400 E5800 | [illegible] | [illegible] | [illegible] | |
| [illegible] | 742 | 107±49 | 60 | [illegible] |
| [illegible] | 743 | [illegible] | 60 | |
| [illegible] | [illegible] | [illegible] | 60 | |
| Med STD | 745 | 1060±90 | 60 | [illegible] |
| N 6300 E5700 | 746 | 18±58 | 60 | |
| [illegible] | [illegible] | 123±58 | [illegible] | |
| N 6200 E5700 | [illegible] | [illegible] | 60 | |
| N 6000 E5800 | [illegible] | 171±51 | 60 | |
| N 6100 E5800 | 750 | [illegible] | 60 | |
| N 6200 E5800 | 751 | [illegible] | [illegible] | |
| N 6300 E5800 | [illegible] | <78 | [illegible] | Sample crushing |
| [illegible] | [illegible] | [illegible] | [illegible] | |

Page 1 of ___

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: _____ Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

_____

Method 6200 Utilized? Y X N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

_____

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| [illegible] | 754 | 247±[illegible] | 60 | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | <8[illegible] | [illegible] | |
| [illegible] | 758 | 128±[illegible] | [illegible] | |
| [illegible] | 759 | 91.5±[illegible] | [illegible] | |
| [illegible] | 760 | [illegible] | [illegible] | [illegible] |
| Recal | [illegible] | [illegible] | 51 | Recal 676 [illegible] |
| [illegible] | 762 | [illegible] | 60 | |
| [illegible] | [illegible] | 179±[illegible] | 60 | |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | 765 | [illegible]75 | [illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| N5[illegible] 65900 | 769 | 143±60 | [illegible] | |
| [illegible] | 770 | 191±[illegible] | [illegible] | |
| [illegible] | 771 | 151±[illegible] | 60 | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | <70 | 60 | |
| [illegible] | 774 | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | 60 | |
| [illegible] | 776 | 24[illegible] | 60 | |
| [illegible] | 777 | <8[illegible] | 60 | |
| [illegible] | [illegible] | [illegible] | 60 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: _____ Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:
[illegible]

Method 6200 Utilized? Y X N __ In-situ readings? Y X N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Hid STD | 779 | [illegible] | 60 | [illegible] |
| Cal | 780 | 0.0 | 51 | [illegible] |
| Med STD | 781 | 1139±95 | 60 | |
| N6000 E500 | 782 | <70 | 60 | |
| N6000 E500 | 783 | 1585 | 60 | |
| N6900 E500 | 784 | 146[illegible] | 60 | |
| N6400 E500 | 785 | <73 | 60 | |
| N6428.7 E500 | 786 | 101±57 | 60 | |
| N6928.7 E500 | 787 | <78 | 60 | Duplicate |
| N6900 E500 | 788 | 186±62 | 60 | |
| N6800 E500 | 789 | 130±60 | 60 | |
| N6800 E500 | 790 | 184.6±52 | 60 | |
| N6800 E500 | 791 | <82 | 60 | |
| N6800 E500 | 792 | <85 | 60 | |
| N6800 E500 | 793 | 209±58 | 60 | |
| N6700 E500 | 794 | <78 | 60 | |
| N6700 E500 | 795 | <76 | 60 | |
| N6700 E500 | 796 | 102±53 | 60 | |
| N6700 E500 | 797 | 109±55 | 60 | |
| N6700 E500 | 798 | 129±52 | 60 | |
| N6600 E500 | 799 | 250±74 | 60 | |
| N6600 E500 | 800 | 256±76 | 60 | Duplicate |
| | 801 | [illegible] | | |
| Med STD | 802 | 1108±[illegible] | 60 | [illegible] |
| N6[illegible] | [illegible] | [illegible] | 60 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: [illegible] Operator Name: [illegible]
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y ✓ N __ In-situ readings? Y ✓ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| N6600E5600 | 804 | 2[illegible]±52 | 60 | |
| N6600E5500 | 805 | <88 | 60 | |
| N6600E5400 | 806 | <126 | 60 | |
| N6500E5400 | 807 | <77 | 60 | |
| N6500E5300 | 808 | 138±56 | 60 | |
| [illegible] | 809 | 181±50 | 60 | |
| N6500E5200 | 810 | <96 | 60 | |
| N6500E5100 | 811 | 183±61 | 60 | |
| N6400E5100 | 812 | 948±94 | 60 | |
| N6400E5200 | 813 | 1024±98 | 60 | Duplicate. |
| N6400E5300 | 814 | [illegible] | 21 | [illegible] |
| N6400E5400 | 815 | <87 | 60 | |
| N6400E5500 | 816 | [illegible] | [illegible] | |
| N6400E5600 | 817 | <76 | 60 | |
| N6400E5700 | 818 | 154±53 | 60 | |
| [illegible] | 819 | [illegible]±98 | 60 | [illegible] |
| N6300E5700 | 820 | 287±57 | [illegible] | |
| [illegible] | 821 | 150±60 | [illegible] | |
| [illegible] | 822 | <100 | [illegible] | |
| [illegible] | 823 | <112 | [illegible] | |
| [illegible] | 824 | 167±59 | [illegible] | |
| [illegible] | 825 | <111 | [illegible] | |
| [illegible] | 826 | [illegible] | [illegible] | |
| N6300E5300 | [illegible] | 136±64 | [illegible] | Dup[illegible] |
| N6300E5200 | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: [illegible] Operator Name: _____

System Check, Warm-Up and Internal Calibration Notes:
0.8728 Warm-up [illegible]

Method 6200 Utilized? Y ✓ N __ In-situ readings? Y ✓ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Cal | 830 | 0.0 | 51 | [illegible] 9.71 |
| [illegible] | [illegible] | 524±28 | 60 | |
| N 6100 [illegible] | 832 | 132±56 | 60 | |
| N [illegible] | 833 | ERR | 1 | |
| N6100 E[illegible] | 834 | <75 | 60 | |
| N6100 E5300 | 835 | 116±53 | 60 | |
| N6100 E5400 | 836 | <77 | 60 | |
| N6000 E-050 | 837 | <91 | 60 | |
| N6000 E5100 | 838 | 18[illegible] | 60 | |
| N6000 E5200 | 839 | 260±[illegible] | 60 | |
| N6000 E5300 | 840 | 245±57 | 60 | Duplicate |
| N6000 E5400 | 841 | <89 | 60 | |
| N6000 E5500 | 842 | 270±60 | 60 | |
| N5900 E5600 | 843 | 116±62 | 60 | |
| N5800 E5500 | 844 | 433±60 | 60 | Some [illegible] on top of [illegible] |
| N5800 E5400 | 845 | 137±53 | 60 | |
| N5800 E5300 | 846 | 245±66 | 60 | |
| N5800 E5200 | 847 | 28±74 | 60 | |
| N5800 E5100 | 848 | 119±56 | 60 | |
| N5800 E5000 | 849 | 189±56 | 60 | |
| N5800 E4900 | 850 | <84 | 60 | |
| N[illegible] | 851 | <72 | [illegible] | |
| N[illegible] | 852 | [illegible] | [illegible] | |
| N5900 E5300 | 853 | 111±6[illegible] | [illegible] | |
| N[illegible] | [illegible] | [illegible] | [illegible] | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: [illegible] Site Name: [illegible] Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y ☒ N __ In-situ readings? Y ☒ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| [illegible] | 855 | [illegible] | 60 | [illegible] |
| [illegible] | [illegible] | [illegible] | 60 | 100 = 4.99% |
| N5800E5600 | [illegible] | [illegible] | [illegible] | |
| N6900E5600 | [illegible] | [illegible] | [illegible] | |
| N[illegible]E5600 | [illegible] | [illegible] | [illegible] | [illegible] |
| N[illegible] | [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] | 100 = [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] 100 = 0.5% |
| Cal | 863 | 0 0 | 51 | [illegible] |
| [illegible] | 864 | 1160 ± 96 | 60 | [illegible] |
| N7400 E[illegible] | 865 | <65 | 60 | |
| N[illegible] E5000 | 866 | <66 | [illegible] | |
| N7600 E[illegible] | [illegible] | <90 | [illegible] | |
| N7[illegible] | 868 | <98 | 60 | |
| N[illegible] | 869 | <109 | 60 | |
| N7[illegible] | 870 | <109 | 60 | |
| [illegible] | [illegible] | 128 ± 76 | [illegible] | |
| [illegible] | [illegible] | <109 | 60 | [illegible] |
| N6000E5900 | [illegible] | [illegible] | 60 | [illegible] |
| [illegible] | [illegible] | 1123 ± 95 | 60 | 100 = 3.3% |
| | | | | |
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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 8-11-99 Site Name: National Zn BTA Operator Name: T. Dallas

System Check, Warm-Up and Internal Calibration Notes:

15 min Warm-up

Method 6200 Utilized? Y X N ___ In-situ readings? Y X N ___ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| High STD | 6 | 5312±230 | 60 | |
| N6100 E6400 | 7 | 139±53 | 60 | |
| N6200 E6400 | 8 | <72 | 60 | ground dry Dry Rxn |
| N6300 E6400 | 9 | <85 | 60 | |
| N6500 E6400 | 10 | 1415±142 | 30 | edge of cattails |
| N6400 E6600 | 11 | 3001±227 | 30 | |
| N6400 E6400 | 12 | 113±59 | 60 | |
| Mod Std | 13 | 1176±95 | 60 | |
| N5900 E6400 | 14 | 89.7±56 | 60 | |
| N5800 E6400 | 15 | <81 | 60 | |
| N5700 E6400 | 16 | 186±55 | 30 | |
| N5700 E6400 | 17 | 131±75 | 40 | |
| N5400 E6400 | 18 | 171±61 | 60 | |
| N5500 E6400 | 19 | 1192±102 | 45 | |
| High STD | 20 | 5296±235 | 60 | |
| N5300 E6300 | 21 | 96.9±49 | 60 | |
| N5400 E6300 | 22 | <111 | 45 | |
| N5700 E6300 | 23 | <142 | 30 | |
| N5800 E6300 | 24 | 890±51 | 45 | |
| N5900 E6300 | 25 | 126±69 | 45 | |
| N5900 E6200 | 26 | <119 | 30 | |
| N5800 E6200 | 27 | 117±73 | 30 | Faster temp 112°F |
| N5700 E6200 | 28 | <127 | 30 | |
| N5600 E6200 | 29 | <89 | 45 | 112°F |
| N5500 E6200 | 30 | <91 | 40 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 8-11-99 Site Name: Nat Zn BTA Operator Name: F. Bailey

System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Med High STD | 31 | 1096±95 | 60 | |
| [illegible] | 32 | [illegible] | 30 | |
| [illegible] | 33 | 125±77 | 30 | |
| N5700 E6100 | 34 | 94.3±36 | 45 | |
| N5600 E6100 | 35 | <120 | 40 | |
| N5400 E5600 | 36 | 183±85 | 30 | |
| N5400 E5500 | 37 | 574±106 | 30 | |
| Dup N5400 E5500 | 38 | 559±106 | 30 | Dup Red |
| N5400 E5700 | 39 | <87 | 40 | |
| [illegible] | 40 | <106 | 40 | |
| High STD | 41 | 5542±234 | 60 | |
| N5400 E6000 | 42 | <112 | 40 | Pure grey |
| N5315 E6100 | 43 | 1501±183 | 20 | |
| N5315 E6100 | 44 | 1656±156 | 30 | Duplicate |
| N5400 E6100 | 45 | <111 | 40 | |
| N5400 E6200 | 46 | 519±111 | 30 | |
| N5300 E6200 | 47 | 205±84 | 30 | N5290 bare spot 1 Off South east from stake |
| N5400 E6300 | 48 | 118±78 | 30 | |
| N5300 E6300 | 49 | 125±67 | 35 | |
| N5200 E6300 | 50 | <106 | 40 | |
| N5100 E6400 | 51 | 151±79 | 30 | |
| N5200 E6400 | 52 | 166±103 | 30 | |
| Med STD | 53 | 1085±94 | 60 | |
| N5300 E6400 | 54 | 104±65 | 60 | |
| N5400 E6400 | 55 | 208±81 | 30 | |
| N5100 E6400 | 56 | 218±92 | 30 | Duplicate |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 8-11-99 Site Name: NATIONAL ZINC Operator Name: Dallen
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| ~~N 5400 E 5400~~ | | | | |
| N5000 E5400 | 57 | <94 | 40 | |
| N5000 E5300 | 58 | <98 | 40 | |
| N5000 E5200 | 59 | 137±75 | 35 | Surface flake knocked down by monitor spot estimated |
| N5100 E5000 | 60 | <108 | 40 | |
| N5100 E5900 | 61 | <104 | 40 | |
| N5100 E5800 | 62 | <104 | 40 | |
| High MD | 63 | 5000±237 | 60 | |
| N5100 E5700 | 64 | <99 | 40 | |
| N5100 E5700 | 65 | <90 | 40 | Duplicate |
| N5100 E5600 | 66 | <87 | 40 | |
| N5100 E5500 | 67 | <125 | 40 | |
| N5100 E5400 | 68 | <109 | 40 | |
| N5100 E5300 | 69 | 139±77 | 30 | |
| N5100 E5200 | 70 | <99 | 40 | |
| N5100 E5100 | 71 | <83 | 40 | |
| N5200 E5100 | 72 | <92 | 40 | |
| N5200 E5200 | 73 | <103 | 40 | |
| Med MD | 74 | 1100±93 | 60 | |
| N5200 E5300 | 75 | <92 | 40 | |
| N5200 E5400 | 76 | <129 | 40 | |
| N5200 E5500 | 77 | <94 | 40 | |
| N5200 E5600 | 78 | 163±78 | 35 | |
| N5200 E5700 | 79 | 247±84 | 35 | Duplicate |
| N 5200 E5800 | 80 | 141±71 | 40 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 8-11-99 Site Name: National Zinc Operator Name: Dillon
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Low STD | 81 | <72 | 60 | |
| N5300E5300 | 82 | <129 | 30 | |
| N5300E5300 | 83 | 105±61 | 40 | |
| N5300E5300 | 84 | 142±73 | 30 | |
| N5300E5300 | 85 | 109±68 | 30 | Duplicate |
| N5300E5400 | 86 | 145±73 | 30 | |
| N5300E5500 | 87 | <111 | 40 | |
| N5300E5500 | 88 | 154±74 | 40 | |
| High STD | 89 | 5404±87 | 60 | |
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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 8-12-99 Site Name: National Z, BTA Operator Name: F Dallas

System Check, Warm-Up and Internal Calibration Notes:
~25 minutes

Method 6200 Utilized? Y ✓ N __ In-situ readings? Y ✓ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| High Std | 91 | 5516 ±236 | 60 | |
| N5900 E5100 | 92 | <88 | 45 | |
| N5800 E5100 | 93 | <100 | 45 | |
| N5700 E5100 | 94 | 112±71 | 45 | |
| N5600 E5100 | 95 | 309±84 | 45 | |
| N5500 E5100 | 96 | 293±82 | 45 | Duplicate |
| N5600 E5200 | 97 | <90 | 45 | |
| N5500 E5300 | 98 | <130 | 30 | Biomass – roots plug-down hole |
| N5600 E5300 | 99 | <94 | 45 | |
| N5700 E5200 | 100 | 173±67 | 40 | |
| N5800 E5200 | 101 | 197±76 | 40 | |
| Mid Std | 102 | 1100±93 | 60 | |
| N5900 E5200 | 103 | <116 | 45 | 2.[illegible] ±1449 |
| N5900 E5300 | 104 | 134±66 | 30 | |
| N5800 E5300 | 105 | 119±75 | 45 | |
| N5700 E5300 | 106 | 107±65 | 45 | |
| N5600 E5400 | 107 | 113±75 | 45 | |
| N5700 E5400 | 108 | <76 | 50 | |
| N5800 E5400 | 109 | 187±63 | 45 | |
| N5900 E5400 | 110 | <74 | 60 | |
| Low Std | 111 | <67 | 67 | Duplicate |
| | | | | |
| High Std | 114 | 5360±270 | 45 | |
| N5200 E7500 | 115 | 235±61 | 45 | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 12-17-99 Site Name: National Zn BTA Operator Name: E Dallen

System Check, Warm-Up and Internal Calibration Notes:
~30 min warm-up

In-situ readings? Y ✓ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 322 | 5497 ± 237 | 60 sec read |
| M6200 6700 | 323 | 10K ± 609 | sample wet - 30 second reading |
| Med STD | 321 | 1088 ± 92 | 60 sec read |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(8)

Date: 7-7-99 Site Name: National Zinc BTA Operator Name: F Pallen
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| Med STD | 217 | 1027 ± 88 | %D = 3.3% |
| Dup N5300E6800 | 218 | 637 ± 66 | %D = 1.3% |
| N5300E6700 | 219 | 223 ± 67 | |
| High STD | 220 | 5412 ± 235 | |
| Low STD | 221 | -73 | low battery replaced battery pack |
| | | | recalibration |
| High STD | 223 | 5472 ± 232 | High STD %D = 2.6% |
| N5300E6600 | 224 | 180 ± 61 | |
| N5300E6500 | 225 | 49 ± 34 | |
| N5100E6500 | 226 | 116 ± 38 | |
| N5400E6600 | 227 | 1198 ± 77 | |
| N5400E6700 | 228 | 148 ± 39 | |
| N5400E6800 | 229 | 135 ± 52 | |
| N5400E6900 | 230 | 176 ± 65 | |
| N5400E7000 | 231 | 381 ± 72 | |
| Med Std | 232 | 1065 ± 86 | %D = 3.7% |
| Dup N5400E7000 | 233 | 335 ± 67 | %D = 5.2% |
| N5500E7000 | 234 | 240 ± 46 | |
| N5500E6900 | 235 | 236 ± 69 | |
| N5500E6800 | 236 | 182 ± 52 | |
| N5500E6700 | 237 | 318 ± 47 | |
| N5500E6600 | 238 | 49 ± 45 | |
| N5500E6500 | 239 | 1176 ± 98 | alot of veg roots |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(9)

Date: 7-7-94 Site Name: National Zinc BTA Operator Name: F Miller

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N5100E 6460 | 240 | 279 | |
| High Std | 241 | 5555±235 | %D = 1.5% |
| | | | Total Ave %D = 8.7% |
| | | | STD Ave %D = 4.1% |
| | | | Field Ave %D = 17.36% |
| | | | |
| | | | Max STD %D = 4.4% |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-7-99 Site Name: National Zinc BTA Operator Name: Farrell Pellen

System Check, Warm-Up and Internal Calibration Notes:
15 min initial warm up

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 60 sec

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 170 | 5625 ± 238 | |
| N5100 E7000 | 171 | 28.2K ± 1103 | |
| N5100 E6900 | 172 | 180 ± 61 | |
| N5000 E6900 | 173 | 111 ± 53 | |
| N5000 E6800 | 174 | < 79 | |
| N5000 E6700 | 175 | 139 ± 52 | |
| N5000 E6600 | 176 | 7264 ± 314 | |
| N5100 E6600 | 177 | 134 ± 43 | |
| N5200 E6500 | 178 | 206 ± 53 | |
| N5200 E6500 | 179 | 99 ± 37 | |
| N5200 E6600 | 180 | 167 ± 52 | |
| N5200 E6600 | 181 | 211 ± 52 | % D = 26.3% |
| Mid STD | 182 | 1061 ± 92 | |
| N5200 E6700 | 183 | ~~377 ± 24~~ FD | 237 ± 52 |
| N5100 E6700 | 184 | 267 ± 61 | |
| N5100 E6800 | 185 | 298 ± 67 | |
| N5200 E6800 | 186 | 752 ± 90 | |
| 58 | 187 | 557 ± 79 | South of N5200 E6900 ~45' |
| N5000 E7000 | 188 | | hand slipped reading stopped + |
| N5000 E7000 | 189 US | 307 ± 62 | 189 start & stop FD |
| N5000 E7100 | 191 | 1768 ± 124 | |
| N5000 E7190 | 192 | 2462 ± 139 | |
| High STD | 193 | 5363 ± 226 | % D = 4.9% |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(6)

Date: 7-7-94 Site Name: National Zinc BTA Operator Name: E Dallen

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 60

| | Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|---|
| Dup | N5000E7100 | 194 | 2576±143 | %D = 2.6% |
| | N5000E7300 | 195 | 126±58 | |
| | N5000E7400 | 196 | 126±49 | |
| | N5000E7500 | 197 | <67 | |
| | N5000E7640 | 198 | 99±50 | N5000 E7640 on RR ballast |
| | N5100E7500 | 199 | 205±58 | |
| | N5100E7400 | 200 | 186±51 | |
| * | N5200E7400 | 201 | 271±52 | |
| | N5100E7300 | 202 | 151±54 | |
| Certified | N5100E7200 | 203 | 1084±109 | |
| | N5100E7100 | 204 | 442±72 | %D = 4.3% |
| Dup | N5100E7100 | 205 | 461±72 | |
| | High STD | 206 | 5596±222 | read in shade %D = 4.3% |
| | N5200E7100 | 207 | 254±64 | |
| → | N5200E7200 | 208 | 351±61 | |
| | N5200E7300 | 209 | 341±59 | |
| | N5300E7400 | 210 | 282±56 | ground wet |
| | N5300E7300 | 211 | 95.6±61 | |
| | N5300E7200 | 212 | 101±54 | |
| → | N5300E7100 | 213 | 516±74 | |
| T | N5300E7000 | 214 | 534±65 | |
| | N5300E6900 | 215 | 7916±336 | |
| | N5301E6800 | 216 | 645±70 | |



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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 07/15/99 Site Name: National Zinc BTA Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:
Start-up 0702, warmed 19min 9.8V

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N ___ In-situ used Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| Cal | 356 | 0.0 Pb | |
| MedSTD | 357 | 1054±94 | 60 SSec |
| N7100E6500 | 358 | <69 | " |
| N7100E6600 | 359 | ND 65 | " |
| N7100E6700 | 360 | <67 | " |
| N7100E6800 | 361 | ND 66 | " |
| N7100E6900 | 362 | <62 | " |
| N7100E7000 | 363 | ND 65 | " |
| N7100E7100 | 364 | <68 | " |
| N7100E7200 | 365 | ND 62 | " |
| N7100E7300 | 366 | <68 | " |
| N7100E7400 | 367 | <71 | " |
| N7100E7400 | 368 | <65 | Dup 60SSec |
| MedSTD | 369 | 1028±92 | " |
| N7200E7400 | 370 | <79 | " |
| N7200E7300 | 371 | <68 | " |
| N7200E7200 | 373 | ND 67 | 372 Bad reading error/slipped 60SSec |
| N7200E7100 | 374 | ND 60 | 60SSec |
| N7200E7000 | 375 | <58 | " |
| N7200E6900 | 376 | <66 | " |
| N7200E6800 | 377 | ND 62 | " |
| N7200E6700 | 378 | ND 59 | " |
| N7200E6600 | 379 | <69 | " |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: _____ Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y__ N__ Run Time:_____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7200E6500 | 380 | ND63 | 60 SSec |
| Med STD | 381 | 1107±94 | " " |
| | | | Change Battery 0915 9.3V |
| | | | Warm 32min |
| Cal | 382 | Pb0.0 | 10.3VV |
| High STD | 383 | 5756±24 | 60 SSec |
| N7300E7000 | 384 | <70 | " |
| N7300E7300 | 385 | ND67 | " |
| N7300E7200 | 386 | <65 | " |
| N7300E7100 | 387 | <70 | |
| N7300E7000 | 388 | ND75 | " |
| N7360E7005 | 389 | <87 | In drainage Swale 60 SSec |
| N7360 E7005 | 390 | <75 | Dup " |
| N7300E6900 | 391 | 124±50 | 60 SSec |
| N7300 E6800 | 392 | ND59 | " " |
| N7300 E6700 | 393 | ND64 | " " |
| N7300E6600 | 394 | ND63 | " " |
| N7300 E6500 | 395 | <67 | " " |
| High STD | 396 | 5526±236 | 60 Sec %D=4.1% |
| N7400E6500 | 397 | <66 | " |
| N7400E6600 | 398 | <68 | " |
| N7400E6700 | 399 | <61 | |
| N7400E6800 | 400 | <64 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(3)

Date: 9/15 Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ___ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: _____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7400E6900 | 401 | <71 | 60Ssec |
| N7400 E7000 | 402 | <72 | " " |
| N7400 E7100 | 403 | 152±55 | " " |
| N7400 E7100 | 404 | 151±51 | Dup 60Ssec |
| N7400 E7200 | 405 | <60 | 60 Ssec |
| N7400 E7300 | 407 | <67 | 406 bad reading slot slipped 407 60Ssec |
| N7400E7400 | 408 | 71.1±46 | 60Ssec |
| HigSTD | 409 | 5379±232 | " |
| Recal | 410 | pb 0.0 | 10.1V |
| Med STD | 411 | 1168±97 | 60 Ssec |
| N7500E7400 | 412 | ND 68 | " " |
| N7500E7300 | 413 | <65 | " " |
| N7500E7200 | 414 | <71 | " " |
| N7500E7100 | 415 | <67 | " " |
| N7500 E7000 | 416 | 71.9±44 | " " |
| N7500 E6900 | 417 | ND 70 | " " |
| N7500E6800 | 418 | <68 | " " |
| N7500E6700 | 419 | ND 66 | " " |
| N7500 E6600 | 420 | <70 | |
| N7500E6600 | 421 | <70 | Dup 60Ssec |
| N7500E6500 | 422 | <67 | 60Ssec |
| N7637E6500 | 423 | <61 | " " |
| N7637E7000 | 424 | 130±60 | " " |



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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: _____ Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: _____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7637E7500 | 425 | <75 | |
| N7637E7500 | 426 | <81 | Pop 60 Sec |
| Med STD | 427 | 1170±96 | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-20,99 Site Name: National Zinc BTA Operator Name: F Dallen

System Check, Warm-Up and Internal Calibration Notes:
~25 min

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60 sec

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High std | 429 | 5347 ± 234 | |
| N7500E6400 | 430 | <93 | |
| N7400E6400 | 431 | <80 | |
| N7300E6400 | 432 | <105 | |
| N7200E6400 | 433 | <93 | |
| N7100E6400 | 434 | <110 | |
| N7000E6400 | 435 | | Released pressure (437 - offscale) |
| N7000E6400 | 437 | <136 | |
| N6900E6400 | 438 | <77 | |
| N6800E6400 | 439 | 223 ± 70 | |
| N6800E6400 | 440 | 1411 ± 65 | Dirt Road |
| Mel STD | 441 | 1168 ± 94 | |
| N6700E6400 | 442 | 162 ± 59 | |
| N6601E6300 | 443 | 3808 ± 205 | |
| N6700E6300 | 444 | 1221 ± 115 | |
| N6800E6300 | 445 | 990 ± 86 | |
| N6900E6300 | 446 | 190 ± 63 | |
| N7000E6300 | 447 | 76.6 ± 44 | |
| N7100E6300 | 448 | 114 ± 65 | |
| N7200E6300 | 449 | <68 | |
| N7300E6300 | 450 | <84 | |
| N7400E6300 | 451 | <90 | 45 sec read |
| N7500E6300 | 452 | <97 | |

High STD 5532 ± 80

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-20-94 Site Name: National Zinc BTA Operator Name: E Pullen
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60S

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 453 | 5808±243 | |
| Recal | | | |
| High STD | 455 | 5100±236 | |
| N7500E6200 | 456 | <98 | |
| N7400E6200 | 457 | <111 | |
| N7300E6200 | 458 | <80 | |
| N7200E6200 | 459 | <78 | |
| N7100E6200 | 460 | 109±64 | |
| N7000E6200 | 461 | 214±64 | |
| N6900E6200 | 462 | 654±57 | chopped 2-4" into very roots |
| N7000E6077 | 463 | 1052±92 | diff to read E 6077? |
| N7100E6100 | 464 | 164±62 | |
| Med STD | 465 | 1144±52 | 96 |
| N7100E6100 | 466 | 191±60 | Dup reading |
| N7200E6100 | 467 | <87 | |
| N7300E6100 | 468 | <98 | 465 read |
| N7400E6100 | 469 | <71 | |
| N7500E6100 | 470 | <409 | released trigger |
| N7500E6100 | 471 | <78 | |
| N7639E6000 | 472 | <70 | |
| N7500E6000 | 473 | <72 | |
| Recal | | | Instrument Quit - too hot? Batt. 10.1 V |
| High Std | 477 | 5420±234 | Batt. 10.0 V |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-20-99 Site Name: National Zinc BTA Operator Name: F Dalka

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ___ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7400E6000 | 478 | <98 | |
| N7300E6000 | 479 | 86.3±54 | |
| N7200E6000 | 480 | 224±44 | |
| N7100E6000 | 481 | 215±57 | Chopped thru 3-4" of veg |
| N7000E6000 | 482 | 137±64 | |
| N7000E5900 | 483 | <106 | |
| N7100E5900 | 484 | <71 | |
| N7200E5900 | 485 | 205±56 | |
| N7300E5900 | 486 | 189±62 | heavy vegetation |
| N7300E5900 | 487 | 775±61 | Dug Road |
| N7400E5900 | 488 | <84 | |
| N7500E5900 | 489 | <122 | <60s |
| Med STD | 490 | 1124±95 | B9.9V |
| Low STD | 491 | <76 | |
| N7500E5800 | 492 | <87 | |
| N7400E5800 | 493 | 250±62 | |
| N7300E5800 | 494 | 119±55 | |
| N7200E5800 | 495 | 150±57 | |
| N7100E5800 | 496 | 131±59 | |
| | 497 | | XRF Quit |
| Recal | | | |
| N7000E5800 | 500 | <143 | <60s read time |
| High STD | 501 | 5565±237 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: F Dallen

System Check, Warm-Up and Internal Calibration Notes:
~25 min Warm up

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 605

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High Std | 503 | 5500 ± 234 | |
| N7500 E5700 | 504 | 166 ± 52 | |
| N7400 E5700 | 505 | < 85 | |
| N7300 E5700 | 506 | 121 ± 73 | 405 recd. |
| N7200 E5700 | 507 | 132 ± 65 | |
| N7100 E5700 | 508 | < 126 | |
| N7000 E5700 | 509 | 284 ± 64 | |
| N7500 E5600 | 510 | 107 ± 49 | |
| N7400 E5600 | 511 | 143 ± 55 | |
| N7300 E5600 | 512 | < 90 | |
| N7200 E5600 | 513 | < 82 | |
| Med Std | 514 | 1126 ± 94 | |
| N7100 E5600 | 515 | 145 ± 56 | |
| N7000 E5600 | 516 | 130 ± 54 | Dup reading |
| N7500 E5500 | 517 | 109 ± 49 | |
| N7400 E5500 | 518 | < 85 | |
| N7300 E5500 | 519 | < 101 | |
| N7300 E5500 | 520 | < 80 | |
| N7200 E5500 | 521 | < 83 | |
| N7100 E5500 | 522 | < 82 | |
| N7000 E5500 | 523 | 119 ± 58 | |
| High Std | 524 | 5408 ± 231 | |
| N7000 E5500 | 525 | < 82 | Dup Reading |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: F Dillon
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N ___ Run Time: ____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6900E6000 | 526 | 90.7 ± 53 | |
| N6900E6080 | 527 | 157 ± 50 | |
| N6700 E6000 | 528 | 693 ± 85 | |
| N6600 E6000 | 529 | < 67 | |
| N6500 E6000 | 530 | 149 ± 54 | |
| N6500 E6100 | 531 | < 89 | |
| N6600 E6100 | 532 | 128 ± 56 | ~~state not in "line" with "E6100" line~~ FD |
| N6700 E6100 | 533 | < 97 | 45 Sec reading |
| N6800 E6100 | 534 | < 95 | |
| N6900 E6100 | 535 | 238 ± 64 | |
| Med STD | 536 | 1106 ± 95 | |
| N6800 E6200 | 537 | 436 ± 83 | |
| N6800 E6200 | 538 | 526 ± 88 | Dup Reading |
| N6700 E6200 | 539 | < 86 | |
| N6600 E6170 | 540 | 1064 ± 96 | |
| N6500 E6200 | 541 | 175 ± 64 | |
| N6500 E6300 | 542 | 81.3 ± 52 | |
| N6600 E6300 | 543 | 206 ± 65 | |
| N6400 E6000 | 544 | 159 ± 62 | |
| N6300 E6000 | 545 | < 90 | 50 sec Read |
| N6200 E6000 | 546 | 114 ± 70 | |
| N6100 E6000 | 547 | 92.8 ± 53 | |
| High STD | 548 | 5523 ± 237 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 7.21.99 Site Name: National Zinc BTA Operator Name: E Pg Ney
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6000 E6000 | 549 | 98 ± 35 | |
| N6000 E6100 | 550 | 761 ± 50 | |
| N6100 E6100 | 551 | < 68 | |
| N6200 E6100 | 552 | < 110 | |
| N6300 E6100 | 553 | 167 ± 72 | |
| N6300 E6100 | 554 | 130 ± 69 | Dup Reading |
| N6400 E6100 | 555 | 182 ± 64 | |
| N6400 E6200 | 556 | < 75 | |
| N6300 E6200 | 557 | < 91 | |
| N6200 E6200 | 558 | | released pressure on XRF |
| N6200 E6200 | 560 | < 90 | |
| N6100 E6200 | 561 | < 104 | |
| Mcl STD | 562 | 1124 ± 96 | |
| N6000 E6200 | 563 | 191 ± 61 | |
| N6000 E6300 | 564 | 263 ± 71 | |
| N6100 E6300 | 565 | < 97 | |
| N6200 E6300 | 566 | 163 ± 64 | |
| N6300 E6300 | 567 | < 69 | |
| N6400 E6300 | 568 | 98.8 ± 57 | |
| N6400 E6400 | 569 | 129 ± 57 | |
| N6400 E6500 | 570 | 1552 ± 94 | in cattails |
| N6400 E6500 | 571 | 1559 ± 136 | Dup Read 30 sec |
| N6300 E6500 | 572 | 164 ± 61 | |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(16)

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: F Miller
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ Run Time: 605

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6200E6500 | 573 | 113±53 | |
| High STD | 574 | 5507±235 | |
| Mod STD | 575 | 1156±95 | |
| N6600E7100 | 576 | 261±63 | |
| N5600E6900 | 577 | 208±75 | |
| N5600E6800 | 578 | 235±58 | |
| N5600E6700 | 579 | 115±65 | 45 sec |
| N5600E6600 | 580 | <67 | |
| N5600E6500 | 581 | 123±72 | 45 sec |
| N5700E6500 | 582 | 90.9±59 | 45 sec |
| N5700E6600 | 583 | <114 | 45 |
| N5700E6700 | 584 | <124 | 45 |
| N5700E6800 | 585 | <82 | 56 s |
| N5700E6900 | 586 | <116 | 30 s lifted trigger on XRF |
| N5700E7000 | 587 | 155±67 | 217@35 172@20 45 s |
| High STD | 588 | 5526±232 | |
| N5800E6900 | 589 | 141±67 | 45 s - humble bee |
| N5800E6800 | 590 | 105±64 | 50 s |
| N5800E6700 | 591 | 228±63 | 235@16 245@7 [illegible] 45 |
| N5800E6600 | 592 | 189±73 | 167@25 177@30 45 s |
| N5800E6500 | 593 | 93.5±59 | |
| N5900E6500 | 594 | <84 | 45 s |
| N6000E6500 | 595 | <95 | 50 s |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-21-99 Site Name: National Zinc BTA Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time: 60S

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N5900 E6600 | 596 | <110 | 45S |
| N5900 E6700 | 597 | 95.9±59 | 45S |
| N5900 E6800 | 598 | 155±64 | 45S |
| Med STD | 599 | 1087±94 | |
| High STD | 601 | 5526±236 | Bat 10.2V |
| N6000 E6800 | 602 | 106±64 | 45S |
| N6000 E6700 | 603 | <112 | 45S |
| N6000 E6600 | 604 | <104 | 45S |
| N6100 E6500 | 605 | 161±67 | 45S |
| N6100 E6500 | 606 | 88.3±56 | Dup Read |
| N6100 E6600 | 607 | 211±72 | 45S |
| N6100 E6700 | 608 | 126±71 | 45S |
| N6100 E6800 | 609 | 2044±162 | RR Tracks 45S |
| N6200 E6700 | 610 | 35.7K±1668 | RR Tracks Area - blast rock Ballast |
| N6200 E6600 | 611 | 139±87 | 45S |
| N6300 E6600 | 612 | 896±101 | |
| N6300 E6600 | 613 | 808±99 | Dup Read 788 @ 45S |
| Med STD | 614 | 1056±93 | |
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(18)

Date: 7-22-99 Site Name: National Zinc BTA Operator Name: F Pallen

System Check, Warm-Up and Internal Calibration Notes:
30 min Resolution 0.67 eV
Source 5 mCi

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 60

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| High STD | 616 | 5468 ± 233 | |
| N5900 E7000 | 617 | 929 ± 90 | |
| N6000 E7000 | 618 | 1638 ± 123 | |
| N6100 E7000 | 619 | 835 ± 95 | |
| N6200 E7000 | 620 | 3760 ± 177 | |
| N6300 E7000 | 621 | 692 ± 103 | 45s ants |
| N6400 E7000 | 622 | 528 ± 82 | 45s " |
| N6400 E7100 | 623 | 702 ± 109 | 45s " |
| N6300 E7100 | 624 | 457 ± 93 | 45s " |
| N6200 E7100 | 625 | 854 ± 82 | |
| N6200 E7100 | 626 | 837 ± 91 | Dup Read 45s |
| N6100 E7100 | 627 | 1537 ± 192 | |
| Low STD | 628 | <62 | |
| Mid STD | 629 | 1188 ± 98 | |
| N6000 E7100 | 630 | 4012 ± 176 | |
| N5900 E7100 | 631 | 161 ± 56 | |
| N5800 E7100 | 632 | 2904 ± 171 | |
| N5700 E7200 | 633 | 3096 ± 166 | 3169 @ 45s |
| N5800 E7200 | 634 | 652 ± 88 | |
| N5900 E7200 | 635 | 1742 ± 153 | |
| N6000 E7200 | 636 | 3616 ± 226 | |
| High STD | 637 | 5395 ± 230 | 5117 ± 271 @ 45s |
| N6100 E7200 | 638 | 1905 ± 144 | 1950 ± 169 @ 45s |

E7200



N 8500 10 RED

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 7-22-99 Site Name: National Zinc BTA Operator Name: F Pulley
System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ___ N ___ Run Time: 605

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6200 E7200 | 639 | 3179 ± 179 | 3140 ± 201 @ 455 |
| N6300 E7200 | 640 | 1116 ± 145 | 455 |
| N6400 E7200 | 641 | 1995 ± 171 | 2000 ± 198 @ 455 |
| N6400 E7200 | 642 | 1809 ± 195 | Dup Reading 455 |
| N6400 E7300 | 643 | 781 ± 121 | 305 - Yosich 104 |
| N6300 E7300 | 644 | 1766 ± 111 | 455 |
| N6200 E7300 | 645 | 1219 ± 140 | 455 |
| N6100 E7300 | 646 | 3625 ± 215 | 455 |
| N6000 E7300 | 647 | 727 ± 95 | 455 |
| N5900 E7300 | 648 | 748 ± 92 | 455 |
| Med STD | 649 | 1088 ± 93 | 1106 ± 108 @ 455 |
| N5800 E7300 | 650 | 3044 ± 193 | 3024 @ 455 |
| N5700 E7300 | 651 | 5721 ± 316 | 5766 ± 351 @ 455 |
| N5600 E7300 | 652 | 3475 ± 252 | 3475 ± 295 @ 445 |
| N5500 E7400 | 653 | 1297 ± 123 | 1290 ± 142 @ 455 |
| N5600 E7400 | 654 | 3827 ± 181 | 3769 ± 210 @ 455 |
| N5700 E7400 | 655 | 5628 ± 299 | 5577 ± 346 @ 445 |
| N5800 E7400 | 656 | 1018 ± 94 | 966 ± 109 @ 455 |
| N5900 E7400 | 657 | 1166 ± 90 | 1075 ± 105 @ 455 Dup Read |
| High STD | 658 | 5460 ± 232 | |
| N5900 E7400 | 659 | 345 ± 91 | 455 |
| N6000 E7400 | 660 | 1681 ± 147 | 455 |
| N6100 E7400 | 661 | 3401 ± 261 | 455 |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 7-22-99 Site Name: National Zinc BTA Operator Name: E Miller

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y __ N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y __ N __ Run Time:_____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6200 E7400 | 662 | 1341 ± 131 | |
| N6300 E7400 | 663 | 690 ± 98 | 45 S |
| N6400 E7400 | 664 | 1562 ± 114 | 45 S |
| N5889 E7574 | 665 | 1526 ± 99 | 1548 ± 116 @ 45 S |
| N5889 E7563 | 666 | 1020 ± 91 | 45 S rc |
| N5900 E7500 | 667 | 2923 ± 167 | 45 S |
| N5800 E7500 | 668 | 2241 ± 134 | 45 S |
| Mid STD | 669 | 1110 ± 94 | |
| N5400 E7500 | 670 | 311 ± 78 | 45 S |
| N5500 E7500 | 671 | 3382 ± 235 | 45 S |
| N5500 E7500 | 672 | 3288 ± 237 | Dup Read |
| N5600 E7500 | 673 | 708 ± 94 | 45 S |
| N5700 E7500 | 674 | 1998 ± 138 | 45 S |
| N6100 E6900 | 675 | 1252 ± 161 | 45 S |
| N6200 E6900 | 676 | 2769 ± 206 | 45 S |
| N6300 E6900 | 677 | 1731 ± 137 | 45 S |
| N6400 E6900 | 678 | 561 ± 95 | 45 S |
| N6400 E6800 | 679 | 1380 ± 109 | 45 S |
| " | 680 | 1534 ± 113 | 45 S Duplicate |
| N6400 E6700 | 681 | 1849 ± 154 | 45 S |
| N6300 E6600 | 682 | 6121 ± 325 | 45 S |
| N 6200 E6600 | 683 | 992 ± 111 | 45 S |
| High STD | 684 | 5408 ± 228 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 02/27/99 Site Name: Nat. Zinc Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:
Scan-up 1519 Warm-up 15 min Start voltage 10.72 V
Res 0.0888 eV

Method 6200 Utilized? Y X N __ In-situ readings? Y X N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Cal | 685 | | 51 | Cal |
| High STD | 686 | 508±52 | 60 | |
| N7000 E5600 | 687 | 101±52 | 60 | Neurs lag |
| N7000 E5500 | 688 | ND 75 | 60 | |
| N6900 E5500 | 689 | ND 58 | 60 | |
| N6800 E5500 | 690 | 155±53 | 60 | |
| N6700 E5500 | 691 | <74 | 60 | |
| N6600 E5500 | 692 | <75 | 60 | |
| N6500 E5500 | 693 | 80.1±42 | | |
| N6500 E5500 | 694 | 167±69 | 40 | Shut off-high hoa- |
| N6500 E5500 | 695 | 115±49 | 60 | Duplicate |
| N6500 E5600 | 696 | <77 | 60 | |
| N6500 E5600 | 697 | 101±51 | 60 | |
| High STD | 698 | 5500±233 | 60 | 6058.2% |
| Re cal | 699 | | 51 | Res = 0.0686 eV |
| Med STD | 701 | 1113 | 60 | Rdg 700 - 50 sec reading - 1092 |
| N6700 E5600 | 702 | <76 | 60 | |
| N6800 E5600 | 703 | 97.8±51 | 60 | |
| N6800 E5600 | 704 | 95.7±50 | 60 | Duplicate |
| N6900 E5600 | 705 | 259±55 | 60 | On rope of berm near slag |
| N6900 E5700 | 706 | 373±93 | 60 | As 340±111 |
| N6800 E5700 | 707 | 193±54 | 60 | |
| N6700 E5700 | 708 | 132±55 | 60 | |
| N6600 E5700 | 709 | 168±51 | 60 | |
| N6500 E5700 | 710 | 83.7±51 | | |

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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 07/27/09 Site Name: _____ Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Med STD | 711 | 1048±92 | 60 | off 1810 |
| on 1911 | | | | Warm up 20 min |
| Cal | 712 | 0.0 | 50s | Res: 0700 eV, V=10.1V |
| High STD | 713 | 5462±236 | 60 | |
| N6800E5800 | 714 | 236±60 | 60 | |
| N6900E5800 | 715 | ND 73 | 60 | |
| N7000E5800 | 716 | ND 72 | 60 | |
| N6900E5900 | 717 | 121±55 | 60 | |
| D N6800E5900 | 718 | 904±83 | 60 | |
| N6800E5900 | 719 | 719±78 | 60 | Duplicate |
| N6700E5800 | 720 | 144±56 | 60 | |
| N6600E5800 | 721 | 116±55 | 62 | |
| N6500E5800 | 722 | 92.4±52 | 60 | |
| N6500E5900 | 723 | 88.0±55 | 60 | |
| N6600E5900 | 724 | <88 | 60 | |
| N6700E5900 | 725 | <77 | | |
| | 726 | ERR | | |
| | 727 | ERR | | |
| High STD | 728 | 5315±227 | | |
| off 2057 | | | | |
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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 07/28/09 Site Name: Randy Brown Operator Name: _____

System Check, Warm-Up and Internal Calibration Notes:
Start 0715 Warm-up 23 min 10.09 Volts Res = 0705

Method 6200 Utilized? Y X N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Cal | 729 | 0.0 | 50s | Calibration |
| Med.STD | 730 | 1040±92 | 60s | |
| N6400E5500 | 731 | 148±58 | 60 | |
| N6300E5500 | 732 | 167±55 | 60 | |
| N6200E5500 | 733 | 125±59 | 60 | |
| N6100E5500 | 734 | <72 | 60 | |
| N6000E5500 | 735 | "ERR" | 31 | XRF stopped |
| N6000E5500 | 736 | 209±59 | 60 | |
| N6000E5600 | 737 | 275±70 | 60 | |
| N6100E5600 | 738 | 215±59 | 60 | |
| N6200E5600 | 739 | <73 | 60 | |
| N6300E5600 | 740 | 76.9±50 | 60 | |
| N6400E5600 | 741 | 189±56 | 60 | |
| N6400E5600 | 742 | 107±49 | 60 | Duplicate |
| N6400E5700 | 743 | 223±55 | 60 | |
| N6300E5700 | 744 | 64±50 | 60 | |
| Med STD | 745 | 1060±90 | 60 | %D = 1.9 % |
| N6200E5700 | 746 | 184±58 | 60 | |
| N6100E5700 | 747 | 123±58 | 60 | |
| N6000E5700 | 748 | 107±55 | 60 | |
| N6000E5800 | 749 | 171±51 | 60 | |
| N6100E5800 | 750 | 97.6±54 | 60 | |
| N6200E5800 | 751 | 143±50 | 60 | |
| N6300E5800 | 752 | <78 | 60 | Strap missing |
| N6400E5800 | 753 | 213±54 | 60 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 07/28/99 Site Name: _____ Operator Name: _____
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y X N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| N6400E5800 | 754 | 247±54 | 60 | Duplicate |
| N6400E5900 | 755 | 99±56 | 60 | |
| N6300E5900 | 756 | 28.5±49 | 60 | |
| N6200E5900 | 757 | <84 | 60 | |
| N6100 E5900 | 758 | 122±54 | 60 | |
| N6000E5900 | 759 | 91.5±52 | 60 | |
| Mod STD | 760 | 1148±96 | 60 | %D=8.3% |
| Recal | 761 | 0.0 | 51 | Res= 676 eV |
| High STD | 762 | 5644±238 | 62 | |
| N5900E6000 | 763 | 179±55 | 60 | |
| N5800E6000 | 764 | <82 | 60 | |
| N5700E6000 | 765 | <75 | 60 | |
| N5600E6000 | 766 | 766±50 | 60 | |
| N5500E6000 | 767 | ND 81 | 60 | |
| N5500 E5900 | 768 | 101±50 | 60 | |
| N5600 E5900 | 769 | 143±60 | 60 | |
| N5700E5900 | 770 | 191±54 | 60 | |
| N5700E5900 | 771 | 151±51 | 60 | Duplicate |
| N5800E5900 | 772 | 90±54 | 60 | |
| N5900E5900 | 773 | <70 | 60 | |
| N5900E5800 | 774 | 116±54 | 60 | |
| N5800E5800 | 775 | 195±57 | 60 | |
| N5800E5700 | 776 | 244±66 | 60 | |
| N5700E5700 | 777 | <88 | 60 | |
| N5600E5700 | 778 | 188±56 | 60 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 07/28/99 Site Name: _____ Operator Name: _____ 32

System Check, Warm-Up and Internal Calibration Notes:
Start 18:18 Warm-up 20 min

Method 6200 Utilized? Y X N __ In-situ readings? Y X N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| High STD | 779 | 5548±232 | 60 | ~~Res=0680~~ |
| Cal | 780 | 0.0 | 51 | Res=0680 |
| Med STD | 781 | 1139±95 | 60 | |
| N6000 ES400 | 782 | <70 | 60 | |
| N6900 ES300 | 783 | 158±52 | 60 | |
| N6900 ES200 | 784 | 146±51 | 60 | |
| N6900 ES100 | 785 | <73 | 60 | |
| N6928.7 ES027.9 | 786 | 101±57 | 60 | |
| N6928.7 ES027.9 | 787 | <78 | 62 | Duplicate |
| N6900 ES025 | 788 | 186±62 | 60 | |
| N6800 ES025 | 789 | 130±60 | 60 | |
| N6800 ES100 | 790 | 84.6±52 | 60 | |
| N6800 ES200 | 791 | <82 | 60 | |
| N6800 ES300 | 792 | <85 | 60 | |
| N6800 ES400 | 793 | 209±58 | 60 | |
| N6700 ES400 | 794 | <78 | 60 | |
| N6700 ES300 | 795 | <76 | 60 | |
| N6700 ES200 | 796 | 112±53 | 60 | |
| N6700 ES100 | 797 | 109±55 | 60 | |
| N6700 ES025 | 798 | 120±50 | 60 | |
| N6600 ES025 | 799 | 250±77 | 60 | |
| N6600 ES025 | 800 | 256±76 | 60 | Duplicate |
| | 801 | Err | | |
| Med STD | 802 | 1108±43 | 60 | %D=2.7 |
| N6600 ES100 | 803 | 141±66 | 60 | |

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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

Date: 07/28/09 Site Name: Nat. Zinc Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y X N __ In-situ readings? Y X N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| N6600ES200 | 804 | 211±58 | 60 | |
| N6600ES300 | 805 | <88 | 60 | |
| N6600ES400 | 806 | <126 | 60 | |
| N6500ES400 | 807 | <77 | 60 | |
| N6500ES300 | 808 | 138±56 | 60 | |
| N6500ES200 | 809 | 181±50 | 60 | |
| N6500ES100 | 810 | <96 | 60 | |
| N6500ES028 | 811 | 183±61 | 60 | |
| N6400ES028 | 812 | 948±94 | 60 | |
| N6400ES028 | 813 | 1024±98 | 60 | Duplicate |
| N6400ES035 | 814 | 163±99 | 21 | underdrain pipe |
| N6400ES100 | 815 | <87 | 60 | |
| N6400ES200 | 816 | 90.9±56 | 60 | |
| N6400ES300 | 817 | <76 | 60 | |
| N6400ES400 | 818 | 154±53 | 60 | |
| Med STD | 819 | 1148±98 | 60 | %D=3.6% |
| N6300ES400 | 820 | 287±57 | 60 | |
| N6300ES300 | 821 | 150±60 | 60 | |
| N6300ES200 | 822 | <100 | 60 | |
| N6300ES100 | 823 | <112 | 60 | |
| N6200ES100 | 824 | 167±59 | 60 | |
| N6200ES200 | 825 | <111 | 60 | |
| N6200ES300 | 826 | 124±64 | 60 | |
| N6200ES300 | 827 | 136±64 | 60 | Duplicate |
| N6200ES400 | 828 | 98.2±56 | 60 | |
| Med STD | 829 | 1092±95 | 60 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

28

Date: 07/24/09 Site Name: Natizin Operator Name: _____

System Check, Warm-Up and Internal Calibration Notes:
0.0728 Warm-up 29min

Method 6200 Utilized? Y X N __ In-situ readings? Y X N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Cal | 830 | 0.0 | 51 | Res-0687eV 9.7V |
| Hi LSTD | 831 | 5241±228 | 60 | |
| N6100E5400 | 832 | 132±56 | 60 | |
| N6100 E5300 | 833 | ERR | 1 | |
| N6100 E5300 | 834 | <73 | 60 | |
| N6100E5200 | 835 | 116±53 | 60 | |
| N6100E5100 | 836 | <77 | 60 | |
| N6000 E5050 | 837 | <91 | 60 | |
| N6000E5100 | 838 | 139±54 | 60 | |
| N6000E5200 | 839 | 260±57 | 60 | |
| N6000 E5200 | 840 | 245±57 | 60 | Duplicate |
| N6000 E5300 | 841 | <89 | 60 | |
| N6000 E5400 | 842 | 220±60 | 60 | |
| N5900E5500 | 843 | 116±62 | 60 | |
| N5800E5500 | 844 | 433±60 | 60 | Some fine clay, poured on top of cup |
| N5700 E5500 | 845 | 137±63 | 60 | |
| N5600 E5500 | 846 | 275±65 | 60 | |
| N5500 E5500 | 847 | 281±74 | 60 | |
| N5500E5600 | 848 | 119±56 | 60 | |
| N5500E5700 | 849 | 180±56 | 60 | |
| N5600E5600 | 850 | <86 | 60 | |
| N5700E5600 | 851 | <72 | 60 | |
| N5700E5800 | 852 | 232±58 | 60 | |
| N5600E5800 | 853 | 111±61 | 60 | |
| N5500 E5800 | 854 | 146±68 | 60 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

29

Date: 07/29/09 Site Name: Nat. Zinc Operator Name: _____

System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y ☒ N ___ In-situ readings? Y ☒ N ___ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| N5500E5800 | 855 | 132±62 | 60 | Duplicate |
| Hig STD | 856 | 5497±233 | 60 | %D = 4.9% |
| N5800E5600 | 857 | 84.5±55 | 60 | |
| N5900E5600 | 858 | 350±73 | 60 | |
| N5900 E5600 | 859 | 380±71 | 60 | Duplicate |
| N5900E5700 | 860 | <93 | 60 | |
| High STD | 861 | 5372±229 | 60 | %D = 2.3% |
| High STD | 862 | 5344±228 | 62 | Duplicate %D = 0.5% |
| Cal | 863 | 0.0 | 51 | V=10.57 Res=0.701eV |
| Med STD | 864 | 1160±96 | 60 | On 10.57 warm 16min |
| N7640 E5024 | 865 | <65 | 60 | |
| N7500 E5024 | 866 | <66 | 60 | |
| N7639E5500 | 867 | <90 | 60 | |
| N7634E7755 | 868 | <98 | 60 | |
| N7500E7755 | 869 | <109 | 60 | |
| N7000E7755 | 870 | <109 | 60 | |
| N6500 E7755 | 871 | 122±76 | 60 | |
| N6500E7755 | 872 | <109 | 60 | Duplicate |
| N6000E7755 | 873 | 379±70 | 60 | Stakemissing visually lined up |
| Med STD | 874 | 1123±95 | 60 | %D = 3.3% |
| | | | | |
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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

36

Date: 8-11-99 Site Name: National Zn BTA Operator Name: Y. Dallas

System Check, Warm-Up and Internal Calibration Notes:
15 min warm-up

Method 6200 Utilized? Y X N ___ In-situ readings? Y X N ___ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| High STD | 6 | 5312±230 | 60 | |
| N6100 E6400 | 7 | 139±53 | 60 | |
| N6200 E6400 | 8 | <72 | 60 | ground dry Dry Rend |
| N6300 E6400 | 9 | <85 | 60 | |
| + N6500 E6400 | 10 | 1415±142 | 30 | edge of railroad |
| + TCLP N6400 E6600 | 11 | 3001±277 | 30 | |
| N6600 E6400 | 12 | 113±59 | 60 | |
| Mod Std | 13 | 1176±95 | 60 | |
| N5900 E6400 | 14 | 89.7±56 | 60 | |
| N5800 E6400 | 15 | <81 | 60 | |
| N5700 E6400 | 16 | 186±85 | 30 | |
| Dup N5700 E6400 | 17 | 131±76 | 40 | |
| N5600 E6400 | 18 | 171±61 | 60 | |
| N5500 E6400 | 19 | 1192±124 | 45 | |
| High STD | 20 | 5696±238 | 60 | |
| N5600 E6300 | 21 | 96.9±49 | 60 | |
| N5600 E6300 | 22 | <111 | 45 | |
| N5700 E6300 | 23 | <142 | 30 | |
| + N5800 E6300 | 24 | 890±51 | 45 | |
| N5900 E6300 | 25 | 126±64 | 45 | |
| N5900 E6200 | 26 | <119 | 30 | |
| N5800 E6200 | 27 | 117±73 | 30 | Faster temp 112°F |
| N5700 E6200 | 28 | <127 | 30 | |
| N5600 E6200 | 29 | <84 | 45 | 113°F |
| N5500 E6200 | 30 | <91 | 40 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(32)

Date: 8-11-99 Site Name: Nat Zn BTA Operator Name: F Dallen

System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Ex Med ~~High~~ STD | 31 | 1095±95 | 60 | |
| N5900 E6100 | 32 | 272±100 | 30 | |
| N5800 E6100 | 33 | 143±77 | 30 | |
| N5700 E6100 | 34 | 94.3±36 | 45 | |
| N5600 E6100 | 35 | <120 | 40 | |
| N5400 E5600 | 36 | 183±86 | 30 | |
| X N5400 E5500 | 37 | 574±106 | 30 | |
| Dup N5400 E5500 | 38 | 559±106 | 30 | Dup Red |
| N5400 E5700 | 39 | <87 | 40 | |
| N5400 E5900 | 40 | <106 | 40 | |
| High STD | 41 | 5542±234 | 60 | |
| N5400 E6000 | 42 | <112 | 40 | Pure Greg |
| X N5315 E6100 | 43 | 1501±183 | 20 | |
| N5315 E6100 | 44 | 1656±156 | 30 | Duplicate |
| N5400 E6100 | 45 | <111 | 40 | |
| N5400 E6200 | 46 | 519±111 | 30 | |
| N5300 E6200 | 47 | 205±84 | 30 | N5290 base spot 10ft South east from stake |
| N5400 E6300 | 48 | 118±78 | 30 | |
| N5300 E6300 | 49 | 125±67 | 35 | |
| N5200 E6300 | 50 | <106 | 40 | |
| N5100 E6400 | 51 | 151±79 | 30 | |
| N5200 E6400 | 52 | 166±103 | 30 | |
| Med STD | 53 | 1088±94 | 60 | |
| N5300 E6400 | 54 | 104±65 | 60 | |
| N5400 E6400 | 55 | 208±86 | 30 | |
| N5100 E6400 | 56 | 218±92 | 30 | Duplicate |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 8-11-99 Site Name: NATIONAL ZINC Operator Name: Dallen
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| ~~N5400 E5300~~ | | | | |
| N5000 E6400 | 57 | <94 | 40 | |
| N5000 E6300 | 58 | <98 | 40 | |
| N5000 E6200 | 59 | 127±75 | 35 | Surveyor stake knocked down by mower - spot estimated |
| N5100 E6000 | 60 | <108 | 40 | |
| N5100 E5900 | 61 | <104 | 40 | |
| N5100 E5800 | 62 | <104 | 40 | |
| High STD | 63 | 5600±237 | 60 | |
| N5100 E5700 | 64 | <99 | 40 | |
| N5100 E5700 | 65 | <96 | 40 | Duplicate |
| N5100 E5600 | 66 | <87 | 40 | |
| N5100 E5500 | 67 | <125 | 40 | |
| N5100 E5400 | 68 | <109 | 40 | |
| N5100 E5300 | 69 | 139±77 | 30 | |
| N5100 E5200 | 70 | <99 | 40 | |
| N5100 E5100 | 71 | <83 | 40 | |
| N5200 E5100 | 72 | <92 | 40 | |
| N5200 E5200 | 73 | <103 | 40 | |
| Med STD | 74 | 1100±93 | 60 | |
| N5200 E5300 | 75 | <92 | 40 | |
| N5200 E5400 | 76 | <129 | 40 | |
| N5200 E5500 | 77 | <94 | 40 | |
| N5200 E5600 | 78 | 163±78 | 35 | |
| N5200 E5600 | 79 | 247±84 | 35 | Duplicate |
| N5200 E5700 | 80 | 141±71 | 40 | |

KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(39)

Date: 8-11-99 Site Name: NATIONAL ZINC Operator Name: Dollen
System Check, Warm-Up and Internal Calibration Notes:

Method 6200 Utilized? Y __ N __ In-situ readings? Y __ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| Low Std | 81 | <72 | 60 | |
| N5300E5100 | 82 | <129 | 30 | |
| N5300E5200 | 83 | 105±61 | 40 | |
| N5300E5300 | 84 | 142±73 | 30 | |
| N5300E5300 | 85 | 109±68 | 30 | Duplicate |
| N5300E5400 | 86 | 146±73 | 30 | |
| N5300E5500 | 87 | <116 | 40 | |
| N5300E5600 | 88 | 154±74 | 40 | |
| High Std | 89 | 5404±228 | 60 | |
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KDHE/Bureau of Environmental Remediation/Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 8.12.99 Site Name: National Zn BTA Operator Name: F Dallen

System Check, Warm-Up and Internal Calibration Notes:
~25 minutes

Method 6200 Utilized? Y ✓ N __ In-situ readings? Y ✓ N __ If N, briefly explain sample preparation/homogenization, sample drying time/temp, analytical variations from Method 6200, etc.:

| Sample I.D. # | XRF Entry #: | Pb (mg/kg): | Run Time (sec.): | Comments: |
|---|---|---|---|---|
| High Std | 91 | 5516 ± 236 | 60 | |
| N5900E5100 | 92 | <88 | 45 | |
| N5800E5100 | 93 | <106 | 45 | |
| N5700E5100 | 94 | 112 ± 71 | 45 | |
| N5600E5100 | 95 | 309 ± 84 | 45 | |
| N5600E5100 | 96 | 293 ± 82 | 45 | Duplicate |
| N5600E5200 | 97 | <90 | 45 | |
| N5500E5300 | 98 | <130 | 30 | Biomass - roots dug down 1 inch |
| N5600E5300 | 99 | <94 | 45 | |
| N5700E5200 | 100 | 173 ± 67 | 40 | |
| N5800E5200 | 101 | 197 ± 76 | 40 | |
| Med Std | 102 | 1100 ± 93 | 60 | |
| N5900E5200 | 103 | <116 | 45 | [illegible] |
| N5900E5300 | 104 | 134 ± 66 | 30 | |
| N5800E5300 | 105 | 119 ± 75 | 45 | |
| N5700E5300 | 106 | 107 ± 65 | 45 | |
| N5600E5400 | 107 | 113 ± 75 | 45 | |
| N5700E5400 | 108 | <76 | 50 | |
| N5800E5400 | 109 | 187 ± 63 | 45 | |
| N5900E5400 | 110 | <74 | 60 | |
| Low Std | 111 | <67 | 67 | ~~Duplicate~~ |
| | | | | |
| High Std | 114 | 5360 ± 270 | 45 | |
| N5200E5500 | 115 | 235 ± 61 | 45 | |
| | | | | |

KDHE/Bureau of Environmental Remediation
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Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 07/13/99 Site Name: National Zinc BTA Operator Name: RANDY BROWN

System Check, Warm-Up and Internal Calibration Notes:
STARTED UP 1975 15 min warm-up
Calibrated 244 0.0 Pb, starting voltage 10.4V

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ (In-situ)

Run Time: 60 sec - seconds, Out #245

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7637 E7755 | 245 | <235 | 30 sec run |
| High Std | 246 | 5523±233 | 60 sec run |
| N7637E7755 | 247 | <93 | " " " |
| N 7500E7600 | 248 | ND 71 | " " " |
| N7500E7700 | 249 | <76 | " " " |
| N7500 E7500 | 250 | <88 | " " " |
| N7400 E7500 | 251 | <78 | " " " |
| N7300E7500 | 252 | <80 | " " " |
| N7200E7500 | 253 | <68 | " " " |
| N7100E7500 | 254 | <88 | " " " |
| N7000E7500 | 255 | <86 | " " " |
| N6900 E7500 | 256 | <ND 67 | ~~[illegible]~~ |
| N6900E7500 | 257 | ND 83 | Per Dup |
| med Std | 258 | 1175±95 | |
| High Std | 259 | 5472±232 | |
| Med Std | 260 | 1155±97 | |
| | | | End voltage = 10.3V |
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Paul
Clark
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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(21)

Date: 07/14/99 Site Name: National Zinc BTA Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:
Start-up 0658 22 min warm-up
100/100 Pb, calibrated rdg 261 Starting voltage = 10.3 V

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ (in-situ/sled) Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6800 HighSTD | 262 | 5318 ± 274 | 60 sec |
| N6800E 7500 | 263 | <76 | " " |
| N6700E7600 | 264 | <72 | " " |
| — | 265 | — | error - ~~[illegible]~~ moved on sled |
| N6600E7800 | 266 | <72 | 60 sec |
| N6500E 7500 | 267 | 394 ± 65 | " " |
| N6500E7600 | 268 | 357 ± 59 | " " |
| N6500E7700 | 269 | 293 ± 58 | " " |
| N6500E7400 | 270 | 744 ± 71 | " " |
| N6500E7200 | 271 | 620 ± 77 | " " |
| N6500E7300 | 272 | 723 ± 95 | " " |
| N6500E7100 | 273 | 867 ± 84 | " " |
| N6500E7000 | 274 | 402 ± 158 | 15 SS |
| N6500E7000 | 275 | 321 ± 62 | 60 SS |
| HighSTD | 276 | 5500 ± 233 | 60 sec |
| Recal | 277 | 0.0 | Internal |
| LowSTD | 278 | ND | 60 sec |
| LowSTD | 279 | <113 | 27 sec |
| MedSTD | 280 | 1191 ± 96 | 60 sec |
| N6500E6900 | 281 | 1001 ± 96 | " " |
| N6500E6800 | 282 | 2139 ± 155 | " " Tr of debris |
| N6500E6700 | 283 | <71 | " " |
| N6500E6600 | 284 | 988 ± 101 | 25' W of Slag Road, 35' East of slag pile |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(22)

Date: 07/14/99 Site Name: National Zinc BTA Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N — (in-situ/sled) Run Time: ____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N 6500 E 6515 | 285 | 857 ± 74 | 60 sec 15' offset from N6500, E6500, in line between N6500 E6500 corner stake and old telep. pole |
| N 6600 E 6600 | 286 | 105 ± 44 | 60 sec |
| N6600 E6505 | 287 | 462 ± 65 | In soil near slag road 60 sec |
| N6600 E6500 | 288 | 597 ± 100 | On slag road 60 sec |
| N 6700 E 6500 | 289 | 155 ± 54 | " |
| N 6700 E 6600 | 290 | <81 | " |
| N 6700 E 6600 | 291 | 872 ± 43 | Dup " |
| Med STD | 292 | 1209 ± 98 | " |
| N 6600 E 6700 | 293 | <59 | " |
| N 6600 E 6800 | 294 | 276 ± 63 | " |
| N6600 E 6900 | 295 | 710 ± 79 | " |
| N6600 E 6900 | 296 | 594 ± 74 | Dup " |
| N6600 E 7000 | 297 | 685 ± 81 | " |
| N6600 E 7100 | 298 | <71 | " |
| N6600 E 7200 | 299 | 232 ± 63 | " |
| N6600 E 7300 | 300 | 474 ± 66 | offset 3' N from stake N6600 E7300 60 sec |
| N6600 E 7400 | 301 | <67 | 60 sec |
| Med STD | 302 | 1187 ± 96 | Last reading - off for lunch 60 sec |
| START | | | On 13:14 Warm-up 19 min |
| Cal | 303 | 0.0 | 10.3V |
| High STD | 304 | 5622 ± 239 | 60 sec |
| N6700 E 7400 | 305 | <66 | " |
| N6700 E 7300 | 306 | 69.0 ± 44 | " |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 07/14/99 Site Name: National Zinc BTA Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N __ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N __ (Insitu only) Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6700E7200 | 307 | ND 65 | 60sec |
| N6700E7100 | 308 | <70 | " |
| N6700E7000 | 309 | <70 | " |
| N6700E7000 | 310 | <78 | Dup 60sec |
| N6700E6900 | 311 | <71 | 60sec |
| N6700E6800 | 312 | <65 | " |
| N6700E6700 | 313 | <71 | " |
| N6800E6500 | 314 | <66 | " |
| N6800E6600 | 315 | <63 | " |
| HighSTD | 316 | 5782±243 | " |
| Recal | 317 | Pb0.0 | 10.2V |
| MedSTD | 318 | 1091±95 | 60sec |
| N6800E6700 | 319 | <63 | " |
| N6800E6800 | 320 | <67 | " |
| N6800E6900 | 321 | <61 | " Hot! |
| N6800E7000 | 322 | <73 | " |
| N6800E7000 | 323 | <73 | " Dup |
| N6800E7100 | 324 | ND 73 | " |
| N6800E7200 | 324 | ND 65 | " |
| N6800E7300 | 325 | ND 71 | " |
| N6800E7400 | 326 | ND 75 | " |
| N6900E7300 | 327 | ND 67 | " |
| MedSTD | 328 | 1048±93 | " |

KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

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Date: 07/14/99 Site Name: National Zinc BTA Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y X N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y X N ___ (In situ w/sled) Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N6900 E7400 | 329 | ND 64 | 60 Sec |
| N6900 E7200 | 330 | <61 | " |
| N6900 E7100 | 331 | <70 | " |
| N6900 E7000 | 332 | <65 | " |
| ADD→ N6900 E6900 | 333 | ND 64 | " |
| N6900 E6800 | 334 | ND 61 | 60 Sec |
| N6900 E6700 | 335 | <69 | 60 Sec |
| N6900 E6600 | 336 | ND 64 | " |
| N6900 E6500 | 337 | <66 | " |
| N7000 E6600 | 338 | <62 | " |
| MedSTD | 339 | 1125±95 | " |
| Recal | 340 | Pb 0.0 | " |
| Recal | 341 | Pb 0.0 | " |
| HighSTD | 342 | 5308±226 | " |
| N7000 E6600 | 343 | <68 | " |
| N7000 E6700 | 344 | <68 | " |
| N7000 E6800 | 345 | <94 | " |
| N7000 E6900 | 346 | <77 | " |
| N7000 E7000 | 348 | <65 | 347 bad reading - sled moved 60 Sec |
| N7000 E7100 | 349 | <66 | |
| N7000 E7100 | 350 | <65 | Dup |
| N7000 E7200 | 351 | <71 | |
| N7000 E7300 | 353 | <69 | 352 bad reading - sled slipped |

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KDHE/Bureau of Environmental Remediation
Site Assessment Program
Niton 733 X-Ray Fluorescence (XRF) Soil Analysis Field Data Sheets

(23)

Date: 07/4/99 Site Name: National Zinc BTA Operator Name: Randy Brown

System Check, Warm-Up and Internal Calibration Notes:

In-situ readings? Y ✓ N ___ If N, briefly explain sample preparation, homogenization, sample drying time/temp, analysis notes, etc.:

Method 6200 Utilized? Y ✓ N ___ (In-situ / w/sled) Run Time:____

| Sample I.D. # | XLNo | Pb (mg/kg) | Notes: |
|---|---|---|---|
| N7000E7400 | 354 | <68 | |
| HighSTD | 355 | 548±235 | |
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| | | | End Voltage = 9.9 V |
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# NATIONAL ZINC SITE
# CHERRYVALE, KANSAS

## APPENDIX E

## Brownfields Assessment Form

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## I. SITE NAME AND LOCATION:

**NAME:** NATIONAL ZINC SITE

**ADDRESS OR OTHER LOCATION IDENTIFIER:** Northeast 1/4 Section 8, Township 32 South, Range 17 East

| | | |
|---|---|---|
| **CITY:** Cherryvale | **STATE:** Kansas | **ZIP:** 67335 |

**DIRECTIONS TO SITE:** Site is bounded by on the north by Montgomery County Road 5200, on the east by Montgomery County Road 5400 and on the south by Martin Street in Cherryvale, Montgomery County, Kansas.

**MAP ATTACHED: Y_X_ or N___**

## II. PROGRAM CONTACTS:

| | | |
|---|---|---|
| **REQUESTED BY:** Roy Riedner | **DATE OF REQUEST:** 04/99 | |
| **AGENCY/OFFICE:** City Manager, City of Cherryvale | | |
| **MAILING ADDRESS:** 123 West Main | | |
| **CITY:** Cherryvale | **STATE:** Kansas | **ZIP:** 67335 |
| **TELEPHONE:** (316) 336-2776 | **FAX:** | |
| **EVALUATOR:** Randolph L. Brown | | |
| **AGENCY/OFFICE:** KDHE/Bureau of Environmental Remediation | | |
| **MAILING ADDRESS:** Building 740, Forbes Field | | |
| **CITY:** Topeka | **STATE:** Kansas | **ZIP:** 66620 |
| **TELEPHONE:** (785) 296-8065 | **FAX:** (785) 296-7030 | |

## III. SITE INFORMATION:

| | |
|---|---|
| **TYPE OF FACILITY:** Abandoned lead/zinc smelter | **TYPE OF OWNERSHIP:** Municipal |

**OWNER/OPERATOR INFORMATION:** Operated by Edgar Zinc Company and subsequently the National Zinc Company

| | |
|---|---|
| **SITE STATUS (active/inactive):** Inactive | **YEARS OF OPERATION:** 1898-1976 |

**OPERATIONAL HISTORY: (How was the site identified?)**

The site was identified through complaints, self-reporting for lagoon closure, and identification by municipality (City of Cherryvale) as concern/redevelopment potential. The site was the largest primary zinc smelter in the world during the early 1900s. Production appears to have declined after 1920 and most active operations ceased by the 1930s. The facility appears to have permanently ceased all operations in 1976.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## IV. SUPERFUND SITE SCREENING CRITERIA

### A. REMEDIAL CRITERIA

#### *1. SOURCE AND WASTE CHARACTERISTICS*

**KNOWN OR SUSPECTED SOURCE TYPES AND LOCATIONS:** Suspected source types include former production areas and associated areas (1) and a waste disposal area/former waste water lagoons (2)

**SIZE OF SOURCES AND QUANTITIES (Volume, Area):** Area (1) - approximately 60 acres; Area (2) approximately 50 acres.

**WASTE TYPES OR HAZARDOUS SUBSTANCES KNOWN OR SUSPECTED TO BE PRESENT:** Heavy metals, especially lead, cadmium, and arsenic; also chromium and silver present.

#### *2. GROUND WATER PATHWAY:*

**What is the likelihood that a release to ground water has occurred at the site?** A release to ground water of heavy metals, especially cadmium, has been observed at the site as demonstrated by valid monitoring well and temporary monitoring well data.

**a. USE AND CHARACTERISTICS:**

**GENERAL STRATIGRAPHY AND HYDROLOGY:** The site is located in a broad, low-relief upland of the Osage Questas physiographic area of southeast Kansas. Bedrock of Pennsylvanian age is present at the base of the soil profile. During the installation of temporary monitoring wells at the site, bedrock was typically encountered between 14 feet (TW-1) and 3.5 feet (TW-8). The bedrock units underlying the site are believed to be composed of sandstone and limestone of the Cherryvale Shale and Dennis Limestone Formations of the Kansas City Group.

A yellowish to reddish-brown sandstone was typically encountered as the bedrock layer upon auger refusal. Ground water occurrence within the Cherryvale Shale and Dennis Formations is typically localized with very low (less than 3 gallons per minute) yields of generally poor quality. These bedrock units typically yield little to no water except in the shallow weathered zone near the upper bedrock surface. Oil field intrusion of brines in the site area from oil production fating back to the early 1900s has impacted shallow ground water quality regionally in this portion of Southeast Kansas (Reference 4).

Ground water occurrence in the site area is primarily restricted to unconsolidated alluvial deposits of the Verdigris River and Cherry Creek. The City of Cherryvale receives water from a surface intake on Big Hill Lake located approximately five (5) miles east of Cherryvale. Significant karst terrain does not exist in the site area given the sequential shale-sandstone-limestone stratigraphy of the bedrock units. A detailed stratigraphic sequence is included as Figure 12. The City of Cherryvale and Montgomery County Rural Water District # 12 supplies water to private residences surrounding the site.

**PRESENCE OF KARST TERRAIN:** None suspected given the sequential sandstone/shale/thin limestone nature of the local bedrock stratigraphy

**DEPTH TO SHALLOWEST AQUIFER:** Less than 10 feet (6-8 feet to ground water typical)

**PRIVATE WELLS WITHIN 4 MILES (locations and population served):** 17 wells, 41 persons served

**MUNICIPAL WELLS WITHIN 4 MILES (locations and population served):** 0 wells

**DISTANCE TO NEAREST DRINKING WATER WELL:** approximately 3/4 (well could not be located and verified during BTA field work).

**WELLHEAD PROTECTION AREAS:** None identified in site area.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## *3. SURFACE WATER PATHWAY:*

**What is the likelihood that a release to surface water has occurred at the site?** A release to surface water has been observed and documented by valid surface water sample data. A release of primarily cadmium, lead, arsenic and chromium were identified on-site in surface water samples. Cadmium was the only RCRA metal observed in the off-site downstream water sample leaving the site in elevated concentration.

**FLOOD FREQUENCY:** Portions of the site the intermittent creek beds flowing along the berm boundaries of the waste disposal unit and adjacent portions of the waste disposal unit are within the 100-year floodplain of Drum Creek.

**DISTANCE TO NEAREST SURFACE WATER:** Less than one mile

**SURFACE WATER BODIES WITHIN 15 DOWNSTREAM MILES:** Drum Creek and the Veridigris River

**DESIGNATED USES OF SURFACE WATER BODIES (ACCORDING TO KANSAS SURFACE WATER REGISTER):**
Drum Creek Designated Uses: Food Procurement and Aquatic Life Support;
Verdigris River Designated Uses: Aquatic Life Support, Contact Recreation, Domestic Water Supply, Food Procurement, Ground Water Recharge, Industrial Water Supply, Irrigation, Livestock Watering

**DRINKING WATER INTAKES WITHIN 15 DOWNSTREAM MILES (locations and populations served):** 0

**FISHERIES WITHIN 15 DOWNSTREAM MILES:** 0

**KNOWN OR POTENTIAL SENSITIVE ENVIRONMENTS AND WETLANDS WITHIN 15 DOWNSTREAM MILES:**
Habitats of threatened or endangered species in Drum Creek and the Verdigris River

## *4. SOIL EXPOSURE PATHWAY:*

**What is the likelihood of exposure to hazardous substances at the site?** A release of hazardous substances, especially lead, has been observed at the site in surficial soils and documented by valid data. Significant areas of lead elevated above the KDHE non-residential RSK value of 1,000 mg/kg were identified at the site.

**NUMBER OF PEOPLE LIVING WITHIN 200 FEET**: approximately 24

**SCHOOLS OR DAY-CARES WITHIN 200 FEET:** none

**POPULATIONS WITHIN 1 MILE:** Approximately 1,048 persons

**NUMBER OF WORKERS AT THE FACILITY OR ADJACENT FACILITIES:** Abandoned facility

**LOCATIONS OF KNOWN OR POTENTIAL TERRESTRIAL SENSITIVE ENVIRONMENTS:**
Habitats of threatened or endangered species in Drum Creek and the Verdigris River

## *5. AIR PATHWAY:*

**What is the likelihood that a release of hazardous substances are migrating from the site to the air?** Soil sample results in the apparent downwind direction from the former smelter production areas indicates elevated levels of lead directly adjacent to the former production areas in the prevalent downwind direction (north-northeast). Since the facility is abandoned, potential air releases are possible from remaining waste and contaminated soils at the site. No formal air monitoring was conducted during the BTA, although soil sample results in the prevalent downwind direction indirectly indicate a limited release to air from the former smelter works at the site.

**POPULATIONS WITHIN 4 MILES:** Approximately 3,132 persons

**DISTANCE TO NEAREST INDIVIDUAL:** 200 feet

**LOCATIONS OF KNOWN OR POTENTIAL SENSITIVE ENVIRONMENTS WITHIN 0 TO 1/4 MILE AND 1/4 TO ½ MILE:**
Areas corresponding to terrestrial habitats of threatened and endangered species present in this portion of Montgomery County.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## B. REMOVAL CRITERIA

**IS THERE A RELEASE AS DEFINED BY THE NCP?** **YES _X_ or NO __**
**EXPLAIN:** A release of lead, cadmium and arsenic to surficial soils in excess of RSKs has been identified at the site. A release of cadmium, lead, and arsenic has been identified in excess of MCLs in surface water at the site. A release of cadmium, lead, and chromium to ground water in excess of MCLs and silver in excess of HALs has been identified at the site.

**IS THE SOURCE A FACILITY OR VESSEL AS DEFINED BY THE NCP?** **YES _X_ or NO __**
**EXPLAIN:** The source is an abandoned primary lead and zinc smelter facility.

**DOES THE RELEASE INVOLVE A HAZARDOUS SUBSTANCE, OR POLLUTANT CONTAMINANT AS DEFINED BY THE NCP? EXPLAIN:** All of the RCRA metals indicated in elevated levels at the site (especially lead, cadmium and arsenic) are hazardous substances as defined in § 302.4 of the NCP. **YES _X_ or NO__**

**IS THE RELEASE SUBJECT TO THE LIMITATIONS ON RESPONSE?** **YES _X_ or NO __**
**EXPLAIN:** No statutory limitations on response appear to exist at the National Zinc site.

**DOES THE QUANTITY OR CONCENTRATION WARRANT RESPONSE?** **YES_X_ or NO __**
**EXPLAIN:** Lead, arsenic and cadmium were detected above non-residential RSKs in surficial soils; lead, arsenic, and admium were detected above MCLs in surface water at the site; and cadmium, lead, chromium were detected above MCL and silver above its HALs in ground water at the site. See BTA Report and Tables for more information and specific concentrations.

**HAS A PRP BEEN IDENTIFIED? (Include name, address and telephone number) YES __or NO X__ EXPLAIN:** A PRP search is ongoing by KDHE as a separate project task. Last address: National Zinc Co., P.O. Box 579, Bartlesville, OK 74003

**IS THERE AN ACTUAL OR POTENTIAL EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS, OR CONTAMINANTS? EXPLAIN:** Elevated levels of several heavy metals have been identified in surficial soils, surface and ground water at the site. **YES_X_ or NO__**

**IS THERE ACTUAL OR A POTENTIAL FOR CONTAMINATION OF DRINKING WATER SUPPLIES?** **YES_X_ or NO __**
**EXPLAIN:** Ground water was identified to be impacted by hazardous substances from the site during the BTA. The threat to ground water supplies would be only potential because no nearby ground water users were identified and local ground water is of highly localized and limited quantity and quality naturally.

**ARE THERE HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN DRUMS, BARRELS, OR BULK STORAGE CONTAINERS? EXPLAIN:** No intact hazardous substance or waste containers were identified to remain at the site during the BTA. **YES __ or NO _X_**

**ARE THERE HIGH LEVELS OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN NEAR-SURFACE SOILS? EXPLAIN:** XRF analysis indicated significant areas of lead in surficial soils in excess of KDHEs non-residential RSK value of 1,000 mg/kg. See BTA for more specific information. **YES_X_ or NO __**

**ARE THERE CONDITIONS ON SITE WHICH MAY BE SUSCEPTIBLE TO IMPACT FROM ADVERSE WEATHER CONDITIONS? EXPLAIN:** The facility has been abandoned for a significant time and no conditions susceptible to adverse weather impact were identified during the BTA. **YES __ or NO_X_**

**IS THERE A THREAT OF FIRE OR EXPLOSION?** **YES __ or NO _X_**
**EXPLAIN:** No threat of fire or explosion was identified during the BTA.

**IS THERE A POTENTIAL FOR OTHER FEDERAL OR STATE RESPONSE MECHANISMS?** **YES_X_ or NO__**
**IF SO, IDENTIFY THE APPROPRIATE PROGRAM:** _RCRA _NRC _FIFRA _UST __OTHER _X_STATE DEFERRAL
**EXPLAIN:** The site may qualify for KDHE's Voluntary Cleanup or State Cooperative Programs if a cooperative PRP is present to conduct response actions. Otherwise, the site may qualify for further CERCLA response and eventual inclusion to the NPL.

**ARE THERE OTHER SITUATIONS OR FACTORS WHICH WARRANT FURTHER CERCLA RESPONSE?** **YES_X_ or NO __**
**EXPLAIN:** Surface water was detected at the site boundaries in excess of action levels. Further integrated site assessment is recommended to evaluate the potential of off-site releases to soils and surface water from the National Zinc site.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## V. SUPERFUND SITE SCREENING FINDINGS AND RECOMMENDATIONS:

**COMMENT: SITE IS ACTIVE IN CERCLIS**

X **REMOVAL ACTION RECOMMENDED:** __EMERGENCY _X_TIME-CRITICAL __NON-TIME-CRITICAL

(Cite one or more of the conditions or factors from Section IV. REMOVAL CRITERIA, as a basis for recommending a removal action.)

| Yes | No | Unknown | Issue | Yes | No | Unknown | Issue |
|---|---|---|---|---|---|---|---|
| X | | | Exposure To Hazardous Substances/Pollutants/Contaminants | | X | | Adverse Weather Impacts |
| | X | | Contaminated Drinking Water | | X | | Fire/Explosion Threat |
| X | | | Contaminated Soil | | X | | Drums, Barrels Or Containers |
| | X | | Other Response Mechanism | X | | | Other Factors |

## V. SUPERFUND SITE SCREENING RECOMMENDATIONS (continued):

**COMMENT:** Additional time-critical removal site evaluation is recommended to further evaluate off-site areas potentially impacted by high levels of lead as indicated by the BTA. Some of these areas to the south of the site may potentially involce residential yards. KDHE will perform a Removal Site Evaluation to further assess these areas in the present federal fiscal year.

X **ADDITIONAL INTEGRATED ASSESSMENT RECOMMENDED**

(Cite the appropriate criteria from Section IV as a basis for recommending that additional site evaluation be performed.)

| Yes | No | Unknown | Issue | Yes | No | Unknown | Issue |
|---|---|---|---|---|---|---|---|
| X | | | Ground water Pathway Threat | X | | | Direct Exposure Pathway Threat |
| X | | | Surface Water Pathway Threat | | | X | Air Pathway Threat |
| X | | | Release Of Hazardous Substances Or Pollutants Or Contaminants | X | | | The Source Is A Facility As Defined By The NCP |
| X | | | CERCLA "Limitations On Response" Provisions Do Not Apply | X | | | Contaminants Present In Sufficient Quantity And/Rr Concentration |
| | X | | Willing/Capable PRPS Willing To Respond At This Time | | | | Actual Or Potential Exposure Threat |
| | X | | Drums, Barrels Or Containers Are Present | X | | | High Levels Of Contaminants In Surface Soils |
| | X | | The Site Is Susceptible To Adverse Weather Conditions | | X | | A Threat Of Fire Or Explosion |
| | X | | Other Federal, State, Or Other Response Mechanisms Available To Investigate The Site | X | | | Endangered Species/ Wetlands/ Other Sensitive Environments May Be Impacted By The Site |

**VI. ADDITIONAL INFORMATION OR COMMENTS:** Additional integrated CERCLA site assessment (updated PA/SSI) is recommended to further evaluate potential off-site releases of hazardous substances from the National Zinc site. A Removal Site Evaluation should also be conducted to evaluate potential off-site areas of surficial lead especially in residential areas adjacent to the site.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## VII. BROWNFIELDS CRITERIA:

### A. RECORDS REVIEW

#### *1. ENVIRONMENTAL RECORDS*

**ARE ANY FEDERAL SUPERFUND (CERCLIS) SITES LOCATED WITHIN A 0.5 MILE RADIUS?** **YES __ or NO X_**

**EXPLAIN:** No sites identified in radius.

**ARE ANY FEDERAL NPL SITES LOCATED WITHIN A 1.0 MILE RADIUS?** **YES__or NO_X_**

**EXPLAIN:** No sites identified in radius.

**ARE ANY FEDERAL RCRA TSD FACILITIES LOCATED WITHIN A 1.0 MILE RADIUS?** **YES__or NO_X_**

**EXPLAIN:** No facilities identified in search radius.

**ARE ANY FEDERAL RCRA GENERATORS LOCATED ON THE PROPERTY OR ADJOINING PROPERTIES?** **YES__or NO_X_**

**EXPLAIN:** No facilities identified in adjoining properties. Several small quantity generators and one large quantity generator located located within 1 mile of the center of the site in the North Highway 169 Industrial Park but are not located adjoining to the site.

**IS THERE ANY RECORD OF FEDERAL SPILL NOTIFICATIONS (ERNS) ON THE PROPERTY?** **YES__or NO_X_**

**EXPLAIN:** No Federal spill records identified from this property.

**ARE OTHER STATE HAZARDOUS WASTE SITE LISTINGS (State Registry, VCPs, etc.) LOCATED WITHIN A 1.0 MILE RADIUS?** **YES_X or NO__**

**EXPLAIN:** State complaints, inspection reports and previous analytical results identified for this site in KDHE files.

**ARE ANY STATE/MUNICIPAL LANDFILLS OR SOLID WASTE DISPOSAL FACILITIES LOCATED WITHIN A 0.5 MILE RADIUS?** **YES__ or NO_X**

**EXPLAIN:** No facilities were identified in search radius, however a former City of Cherryvale and National Zinc consturction/demolition debris area is present northeast of the remaining storage buildings adjacent to the southeast edge of the railroad right-of-way.

**ARE ANY STATE REGISTERED USTs OR LEAKING USTs LOCATED WITHIN A 0.5 MILE RADIUS?** **YES__ or NO_X**

**EXPLAIN:** No UST sites identified within 0.5 miles,\.

**WERE ANY OTHER STATE OR LOCAL SOURCES CONTACTED?** **YES_X or NO__**

**EXPLAIN:** All KDHE individual bureaus were contacted for relevant file information. Local officials were also contacted for additional information.

**DOES THE PROPERTY HAVE ANY HISTORY OF ENVIRONMENTAL VIOLATIONS OR ENVIRONMENTAL LIENS?** **YES_X or NO__**

**EXPLAIN:** A restrictive covenant is in place for portions of the site. Data collected during the BTA as well as previous sample data indicates releases of heavy metals, especially lead, cadmium and arsenic, at the site. Past complaints and inspections at the site have indicated releases of heavy metals to surface water at the site.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## VII. BROWNFIELDS CRITERIA:

### A. RECORDS REVIEW (continued):

#### *2. HISTORICAL USE RECORDS*

**WHAT HAVE BEEN THE USES OF THE PROPERTY SINCE 1940?**

The property has been abandoned during most of the time since 1940. The National Zinc Company had dewatered the lagoon and utilized the lagoon area as a waste consolidation area for the former facility. Some C/D material has been disposed at the site throughout the history of the site. The South Kansas and Oklahoma Railroad bisects the site and has been in continual use since 1940. The Williams Pipe Line Company maintains a natural gas pipeline meter/valve station adjacent to the railroad right-of-way near the old U.S.169 highway.

**WERE THE FOLLOWING RESOURCES CONSULTED?**

| | |
|---|---|
| **Fire Insurance Maps** | **YES_X_ or NO__** |
| **Property Tax Files** | **YES_X_ or NO__** |
| **Property Title Records** | **YES_X_ or NO__** |
| **Zoning/Land Use Records** | **YES_X_ or NO__** |
| **Aerial Photographs** | **YES_X_ or NO__** |
| **USGS 7.5 Minute Topographic Map (required, attach)** | **YES_X_ or NO__** |
| **Local Street Directories** | **YES_X_ or NO__** |
| **Building Department Records (for alterations, improvements, demolitions, etc.)** | **YES_X_ or NO__** |
| **Other (explain)** | **YES__ or NO__** |

Historic city directories, literature on smelting and similar historic operations at the beginning of the 20th century.

### B. SITE RECONAISSANCE

#### *1. SITE CONDITIONS RELEVANT TO TRANSACTION SCREEN PROCESS*

(NOTE: These criteria are in addition to environmental conditions identified in sections IV through VI above.)

**WHAT IS THE PRESENT USE OF THE PROPERTY?**

The property is generally abandoned. The South Kansas and Oklahoma Railroad spur bisecting the site is active. The Williams Pipe Line station located north of the tracks in the southeast corner of the site is also active but is unmanned except for short routine operational inspections.

**ARE ANY BUILDINGS OR STRUCTURES LOCATED ON THE PROPERTY? IF SO, INCLUDE THE FOLLOWING INFORMATION FOR EACH BUILDING:**

Three (3) storage buildings are the only intact structures remaining from the former National Zinc facility.
**No. of Stories:** 1 (all buildings)
**Approximate Age:** 80-90 yrs. for older building, approximately 30-40 years for newer metal building
**Ancillary Structures (if any):** Only foundations and remnants are remaining of other structures
**Description of Interior (accessible common areas, HVAC, stains or corrosion, drains or sumps):** Buildings only used for storage, no HVAC, insulation or active water piping present that may incur institutional environmental problems (asbestos, lead paint/pipes, etc.)

The Williams Pipe Line station is housed in a roughly 6'X6'X4' small metal building.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## VII. BROWNFIELDS CRITERIA:

**DESCRIBE ANY ROADS OR PATHWAYS ON THE PROPERTY:**
The site is bounded by roads on three sides. The South Kansas and Oklahoma Railroad line intersects the site but no rail crossings are present within the site boundaries. The main entrance to the site has a gravel driveway which allows access to the storage buildings and former production areas. County Road 5200 ends at the Williams Pipe Line meter/valve station building. Some gravel/dirt roads intermittently cross the site but are impassible during wet or icy periods.

**IS THE PROPERTY SERVED BY A POTABLE WATER SUPPLY?** **YES X or NO __**

**EXPLAIN:** The site area is supplied with water from the City of Cherryvale and Montgomery County Rural Water District #12.

**IS THE PROPERTY SERVED BY A SEWAGE SYSTEM?** **YES X or NO __**

**EXPLAIN:** The City of Cherryvale sewer system serves the eastern and southern boundaries of the site.

**WERE ANY PONDS OR LAGOONS OBSERVED ON SITE? (See Section IV-VI for further information)** **YES X or NO __**

**EXPLAIN:** The former waste water lagoon has been covered and filled with waste material from the site. Some ponding and standing water occurrs in eroded areas on the waste disposal area/former lagoon cap.

**WERE ANY OTHER INDICATIONS OF THE PRESENCE OF HAZARDOUS MATERIALS OBSERVED? (eg odors, stained soil - See Section IV-VI for further information)** **YES X or NO __**

**EXPLAIN:** Visual evidence of surficial smelter waste, especially visible waste slag waste, was identified during the BT

**DESCRIBE SITE GEOLOGIC, HYDROGEOLOGIC, HYDROLOGIC, OR TOPOGRAPHIC CONDITIONS:**

The site is relatively flat with approximately 30 feet of relief across the nearly ½ mile wide site (approximately 1% slope). Shallow ground water occurs as perched water at the soil/bedrock interface between 6 and 15 feet deep. Ground water may be more prevalent in the waste disposal area as the disposal cell may contain relict waste water from the former lagoon or runoff from construction of the waste disposal area cover.

**IS THERE REASON TO SUSPECT ANY OF THE FOLLOWING MAY BE PRESENT ON SITE:**

| | |
|---|---|
| **Asbestos-Containing Materials** | **YES__ or NO_X** |
| **Radon** | **YES__ or NO_X** |
| **Lead-Based Paint** | **YES__ or NOX_** |
| **Lead Soldered Water Lines** | **YES__ or NOX_** |
| **Heating/Cooling Fluids** | **YES__ or NO X** |
| **PCB-Containing Electric/Hydraulic Equipment** | **YES__ or NO_X** |
| **Wetlands** | **YES__ or NO_X** |

**EXPLAIN:** With the exception of the remaining storage buildings, no other intact structures remain at the site. No basements are remaining for existing structures. No insulation, HVAC systems, lead piping or paint was observed during the BTA (remaining buildings are sheet metal). The Williams Pipeline station is not a compressor station and does not utilize any hydraulic or other equipment potentially containing PCBs.

# REGION 7 SUPERFUND SITE
# PRE-CERCLIS/BROWNFIELDS SCREENING FORM

## VII. BROWNFIELDS CRITERIA:

### *2. ADJOINING PROPERTY USE (Past and Present)*

**WHAT ARE THE PRESENT USES OF ADJOINING PROPERTIES?** **MAP ATTACHED YES _X_ NO ___**

Adjoining properties are generally residential. The former city waste water treatment plant has been abandoned and is currently used as a water works storage area and city vehicle wash area.

**WHAT ARE THE PAST USES OF ADJOINING PROPERTIES?**

**WERE THE FOLLOWING RESOURCES CONSULTED TO VERIFY ADJOINING PROPERTY USES?**

| | |
|---|---|
| **Fire Insurance Maps** | **YES_X_ or NO__** |
| **Property Tax Files** | **YES_X_ or NO__** |
| **Property Title Records** | **YES_X_ or NO__** |
| **Zoning/Land Use Records** | **YES_X_ or NO__** |
| **Aerial Photographs** | **YES_X_ or NO__** |
| **USGS 7.5 Minute Topographic Map (required, attach)** | **YES_X_ or NO__** |
| **Local Street Directories** | **YES_X_ or NO__** |
| **Building Department Records (for alterations, improvements, demolitions, etc.)** | **YES_X_ or NO__** |
| **Other (explain)** | **YES_X_ or NO__** |

Historic city business directories and historical information were also consulted for the BTA.

## C. PERSONAL INTERVIEWS:

**OWNERS/OPERATORS INTERVIEWED and CONTACT INFORMATION:**
The former National Zinc facility is currently vacant and abandoned. The City of Cherrryvale is the current landowner. The South Kansas and Oklahoma Railroad and the Williams Natural Gas pipeline cross the property but operational activity for these within the site area is intermittent (trains crossing, pipeline meter checks, etc.)

**ASTM E-1528 QUESTIONNAIRE(S) ATTACHED? YES _or NO X_**

**GOVERNMENTAL OFFICIALS INTERVIEWED and CONTACT INFORMATION:**
Roy Riedner, City Manager; 123 West Main, Cherryvale, Kansas, 67335; (316) 336-2776

**ASTM E-1528 QUESTIONNAIRE(S) ATTACHED? YES _or NO X_**

## EVALUATOR SIGNATURE

**EVALUATIOR:** Randolph L. Brown
Name

**SIGNATURE:** [signature] **DATE:** 12/30/99

**POSITION/TITLE:** Site Assessment Unit Chief

**OFFICE/AGENCY:** KDHE/BER/Remedial Section

# NATIONAL ZINC SITE
# CHERRYVALE, KANSAS

## APPENDIX F

## RCRA Generators and UST Trust Fund Sites Within 4 Miles

ENTER Q-QUIT OR A-ABORT: _

DISPLAY RECORD NUMBER: ___ DATA GROUP: 1-TRACKING; 2-BTLA: _

| SEQ. NO. | FAC. NO. | BTLA DATE | PROJECT CODE | PROJECT NAME | ADDRESS | STAT | LEGAL DISC. |
|---|---|---|---|---|---|---|---|
| 001 | 88888 | 19870116 | U306300280 | ADKINS OIL CO | 101 E 4TH | CLSD | 163217E |
| 002 | 26359 | 19900126 | U306300215 | ANR FREIGHT | 169 N IND | CLSD | 093217E |
| 003 | 26359 | 19901115 | U306300215B | ANR FREIGHT SYSTEMS INC | 169 N IND | CLSD | 093217E |
| 004 | 88888 | 19891017 | U306300149 | CHERRYVALE GAZETTE | 300 W MAI | CLSD | 093217E |
| 005 | 81567 | 19970905 | U306311692 | CHERRYVALE MIDDLE SCHOOL | 401 E MAI | CLSD | 093217E |
| 006 | 13607 | 19890830 | U306300129 | DEWEY AUTO | 307 W MAI | CLSD | 163217E |
| 007 | 81373 | 19951024 | U306310682 | GENE'S SERVICE | 300 N LIB | CLSD | 083217E |
| 008 | 00699 | 19941024 | U306300682 | TED'S SERVICE | 314 S LIB | CLSD | 173217E |
| 009 | 29189 | 19991221 | U305012806 | TRI CITY AIRPORT | 163 HWY 1 | CLSD | 233117E |
| 010 | 26954 | 19931209 | U306300611 | U-DO STORE #8 | 100 N LIB | CLSD | 083217E |
| 011 | 27485 | 19961009 | U306311172 | US ARMY CORP, BIG HILL R | PO BOX 42 | CLSD | |
| 012 | 07133 | 19980107 | U306311834 | ZIP TRIP | 312 S LIB | HOLD | 173217E |
| 013 | 07133 | 19990317 | U306312424 | ZIP TRIP | 312 S LIB | ACT | 173217E |

| | | | |
|---|---|---|---|
| HANDLER NAME: | CHERRYVALE CORP | HANDLER ID: | KSD031206329 |
| STREET: | N HWY 169 INDUSTRIAL PARK | FACILITY ID: | KSD031206329 |
| CITY: | CHERRYVALE | CORPORATE LINK: | No |
| STATE: | KS | COUNTY: | MONTGOMERY |
| ZIP CODE: | 67335 | MAPPING INFO: | MAP |
| EPA REGION: | 7 | | |

Contact Information

| Name | Street | City | State | ZIP Code | Phone | Type of Information |
|---|---|---|---|---|---|---|
| DEAN LAWRENCE | PO BOX 96 | CHERRYVALE | KS | 67335 | (316) 336-2155 | Notification Data - Core |
| TROLLOPE DARREL | P.O. BOX 96 | CHERRYVALE | KS | 67335 | (316) 336-2155 | Part A Data - Core |

**Handler/Facility Classification**

| Handler Type | Land Disposal | Incinerator | Boiler and/or Industrial Furnace | Storage and Treatment |
|---|---|---|---|---|
| SMALL QTY GENERATOR | | | | |

| | | | |
|---|---|---|---|
| HANDLER NAME: | KC 24 HOUR TRUCK REPAIR | HANDLER ID: | KSD981708076 |
| STREET: | N HWY 169 | FACILITY ID: | KSD981708076 |
| CITY: | CHERRYVALE | CORPORATE LINK: | No |
| STATE: | KS | COUNTY: | MONTGOMERY |
| ZIP CODE: | 67335 | MAPPING INFO: | MAP |
| EPA REGION: | 7 | | |

Contact Information

| Name | Street | City | State | ZIP Code | Phone | Type of Information |
|---|---|---|---|---|---|---|
| SUTHERLAND KENT | NORTH HWY 169 | CHERRYVALE | KS | 67335 | (316) 336-3912 | Part A Data - Core |
| SUTHERLAND KENT | RR 1 BOX 56 | CHERRYVALE | KS | 67335 | (316) 336-3912 | Notification Data - Core |

**Handler/Facility Classification**

| Handler Type | Land Disposal | Incinerator | Boiler and/or Industrial Furnace | Storage and Treatment |
|---|---|---|---|---|
| SMALL QTY GENERATOR | | | | |

| | | | |
|---|---|---|---|
| HANDLER NAME: | VALLIS WNGROFF BUSINESS FORMS INC | HANDLER ID: | KSD007164247 |
| STREET: | N HWY 169 INDUSTRIAL PARK | FACILITY ID: | KSD007164247 |
| CITY: | CHERRYVALE | CORPORATE LINK: | No |
| STATE: | KS | COUNTY: | MONTGOMERY |
| ZIP CODE: | 67335 | MAPPING INFO: | MAP |
| EPA REGION: | 7 | | |

Contact Information

| Name | Street | City | State | ZIP Code | Phone | Type of Information |
|---|---|---|---|---|---|---|
| CARTER LANCE | P.O. BOX 7 | CHERRYVALE | KS | 67335 | (316) 336-2171 | Part A Data - Core |
| CARTER LANCE | PO BOX 7 | CHERRYVALE | KS | 67335 | (316) 336-2171 | Notification Data - Core |

**Handler/Facility Classification**

| Handler Type | Land Disposal | Incinerator | Boiler and/or Industrial Furnace | Storage and Treatment |
|---|---|---|---|---|
| SMALL QTY GENERATOR | | | | |

Go To Top Of The Page

Total Number of Facilities Displayed: 4

EPA United States Environmental Protection Agency

Envirofacts Warehouse — Hazardous Waste Data

Overview | Law EXIT EPA | Query | Model | Feedback | EF Home

# RCRIS Query Results

## Page No. 1

**Consolidated facility information (from multiple EPA systems) was searched to select facilities**

ZIP CODE: **67335**
COUNTY NAME: **Montgomery**
STATE ABBREVIATION: **KS**
EPA REGION CODE: **7**
Results are based on data extracted on DEC-20-1999

**Note:** Click on the underlined CORPORATE LINK value for links to that company's environmental web pages. Click on the underlined MAPPING INFO value to obtain mapping information for the facility. Click on the underlined FACILITY ID value to view EPA Facility information for the facility.

Go To Bottom Of The Page

| | | | |
|---|---|---|---|
| HANDLER NAME: | CHARLOMA INC | HANDLER ID: | KSD007168834 |
| STREET: | N LIBERTY ST RD | FACILITY ID: | KSD007168834 |
| CITY: | CHERRYVALE | CORPORATE LINK: | No |
| STATE: | KS | COUNTY: | MONTGOMERY |
| ZIP CODE: | 67335 | MAPPING INFO: | MAP |
| EPA REGION: | 7 | | |

Contact Information

| Name | Street | City | State | ZIP Code | Phone | Type of Information |
|---|---|---|---|---|---|---|
| WELLS WENDELL | BX 367 | CHERRYVALE | KS | 67335 | (316) 336-2124 | Part A Data - Core |
| WELLS WENDELL | PO BOX 367 | CHERRYVALE | KS | 67335 | (316) 336-2124 | Notification Data - Core |

**Handler/Facility Classification**

| Handler Type | Land Disposal | Incinerator | Boiler and/or Industrial Furnace | Storage and Treatment |
|---|---|---|---|---|
| LARGE QTY GENERATOR | | | | |

# NATIONAL ZINC SITE
# CHERRYVALE, KANSAS

## APPENDIX G

## Geophysical Survey Data and Notes

**EM-31 Conductivity Survey Notes** Page: 1

Site Name: National Zinc Site Dates: 06/16-06/17/99

Operator: Randolph L. Brown

Survey Information/Notes :

Survey conducted 06/09/99 and 11/30/99

Background Reading Reference Point:
Located at grid point N 7500, E 5500.
Survey area flagged at 500'X500' grid by surveyor with lath stakes and flagging.

Calibration Date/Time: 06/09/99/1310 Weather: Hot, humid 95°, partly cloudy

06/09/99 Calibration Notes: Quadrature internal calibration adequate, no phase/comp adjustment necessary. Conductivity range set at 1000 mS/m. In-phase null/zero adjusted to zero ppT. Datalogger program/EM-31 operating program runs O.K. Survey begin 1340, end 1845. Survey conducted in both in-phase and quadrature modes, vertical dipole mode.

11/30/99 Calibration Notes: Quadrature internal calibration adequate, no phase/comp adjustment necessary. Conductivity range set at 1000 mS/m. In-phase null/zero adjusted to zero ppT. Datalogger program/EM-31 operating program runs O.K. Survey begin 1115, end 1345. 11/30/99 survey conducted to verify/check previous survey results. Survey conducted in both in-phase and quadrature modes, vertical dipole mode.

Other Notes:

Railroad bisects site from southeast to north-northwest. Metal buildings, slag and debris in southeast and south-central portions of site. High terrain conductivity values anticipated, quadrature scale reset from 100 (typical range) to 1000 mS/m during calibration. Observed terrain conductivity values in excess of 500 mS/m observed during surveys.

Raw data file included

BEGIN EM-31 MK2 DATA FILE

| | | | |
|---|---|---|---|
| 7640.000 | 5000.000 | 37.000 | -19.947 |
| 7631.200 | 5000.000 | 31.000 | -5.500 |
| 7622.400 | 5000.000 | 42.000 | -11.937 |
| 7613.600 | 5000.000 | 48.000 | 0.202 |
| 7604.800 | 5000.000 | 42.000 | -1.172 |
| 7596.000 | 5000.000 | 43.000 | -1.147 |
| 7587.200 | 5000.000 | 42.000 | -0.900 |
| 7578.400 | 5000.000 | 44.000 | -0.786 |
| 7569.600 | 5000.000 | 46.000 | 0.055 |
| 7560.800 | 5000.000 | 45.000 | 2.360 |
| 7552.000 | 5000.000 | 45.250 | 0.267 |
| 7543.200 | 5000.000 | 48.000 | -0.572 |
| 7534.400 | 5000.000 | 48.000 | -0.846 |
| 7525.600 | 5000.000 | 49.000 | -0.900 |
| 7516.800 | 5000.000 | 50.000 | -0.730 |
| 7508.000 | 5000.000 | 55.000 | -0.840 |
| 7499.200 | 5000.000 | 58.000 | -0.860 |
| 7490.400 | 5000.000 | 57.000 | -0.900 |
| 7481.600 | 5000.000 | 60.000 | -0.720 |
| 7472.800 | 5000.000 | 63.000 | -0.930 |
| 7464.000 | 5000.000 | 62.000 | -0.580 |
| 7455.200 | 5000.000 | 64.750 | -0.275 |
| 7446.400 | 5000.000 | 71.250 | 0.145 |
| 7437.600 | 5000.000 | 61.500 | 0.807 |
| 7428.800 | 5000.000 | 71.250 | 1.420 |
| 7420.000 | 5000.000 | 67.000 | 2.500 |
| 7411.200 | 5000.000 | 69.000 | 2.750 |
| 7402.400 | 5000.000 | 66.000 | 2.490 |
| 7393.600 | 5000.000 | 71.000 | 2.650 |
| 7384.800 | 5000.000 | 69.000 | 3.220 |
| 7376.000 | 5000.000 | 74.500 | 4.170 |
| 7367.200 | 5000.000 | 75.000 | 4.890 |
| 7358.400 | 5000.000 | 83.000 | 6.207 |
| 7349.600 | 5000.000 | 100.000 | 9.145 |
| 7340.800 | 5000.000 | 113.000 | 12.860 |
| 7332.000 | 5000.000 | 123.250 | 18.902 |
| 7323.200 | 5000.000 | 144.000 | 10.285 |
| 7314.400 | 5000.000 | 54.000 | -3.817 |
| 7305.600 | 5000.000 | 232.250 | 20.477 |
| 7296.800 | 5000.000 | 228.250 | 20.477 |
| 7288.000 | 5000.000 | 170.000 | 14.980 |
| 7279.200 | 5000.000 | 318.250 | 20.477 |
| 7270.400 | 5000.000 | 166.750 | 20.477 |
| 7261.600 | 5000.000 | 184.000 | 10.330 |
| 7252.800 | 5000.000 | 222.250 | 16.395 |
| 7244.000 | 5000.000 | 157.250 | 6.455 |
| 7235.200 | 5000.000 | 184.250 | 20.477 |
| 7226.400 | 5000.000 | 212.000 | 20.037 |
| 7217.600 | 5000.000 | 239.000 | 8.615 |

| | | | |
|---|---|---|---|
| 7208.800 | 5000.000 | 225.000 | 9.775 |
| 7200.000 | 5000.000 | 212.000 | 13.042 |
| 7191.200 | 5000.000 | 173.250 | 9.772 |
| 7182.400 | 5000.000 | 150.750 | 12.430 |
| 7173.600 | 5000.000 | 182.750 | 14.610 |
| 7164.800 | 5000.000 | 296.000 | 16.132 |
| 7156.000 | 5000.000 | 160.500 | 18.515 |
| 7147.200 | 5000.000 | -9.250 | 5.602 |
| 7138.400 | 5000.000 | 67.250 | -20.470 |
| 7129.600 | 5000.000 | 164.000 | -20.470 |
| 7120.800 | 5000.000 | 128.750 | -8.117 |
| 7112.000 | 5000.000 | 152.750 | 0.770 |
| 7103.200 | 5000.000 | 84.250 | -20.470 |
| 7094.400 | 5000.000 | 37.000 | -20.470 |
| 7085.600 | 5000.000 | 75.000 | -20.470 |
| 7076.800 | 5000.000 | 146.000 | 2.245 |
| 7068.000 | 5000.000 | 179.500 | 2.815 |
| 7059.200 | 5000.000 | 181.500 | 0.765 |
| 7050.400 | 5000.000 | -121.000 | -20.470 |
| 7041.600 | 5000.000 | 170.000 | 3.975 |
| 7032.800 | 5000.000 | 201.000 | 20.477 |
| 7024.000 | 5000.000 | 159.000 | 4.282 |
| 7015.200 | 5000.000 | 144.000 | 20.477 |
| 7006.400 | 5000.000 | 541.500 | 20.477 |
| 6997.600 | 5000.000 | 796.250 | 20.477 |
| 6988.800 | 5000.000 | 1006.500 | 20.477 |
| 6980.000 | 5000.000 | 401.750 | 20.477 |
| 6971.200 | 5000.000 | 638.250 | 20.477 |
| 6962.400 | 5000.000 | 633.500 | 20.477 |
| 6953.600 | 5000.000 | 423.250 | 20.477 |
| 6944.800 | 5000.000 | 585.000 | 20.477 |
| 6936.000 | 5000.000 | 545.250 | 20.477 |
| 6927.200 | 5000.000 | 798.500 | 20.477 |
| 6918.400 | 5000.000 | 478.500 | 20.477 |
| 6909.600 | 5000.000 | 224.000 | 20.477 |
| 6900.800 | 5000.000 | 281.500 | 19.290 |
| 6892.000 | 5000.000 | 201.000 | 13.575 |
| 6883.200 | 5000.000 | 243.250 | 12.580 |
| 6874.400 | 5000.000 | 202.250 | 9.775 |
| 6865.600 | 5000.000 | 223.000 | 10.565 |
| 6856.800 | 5000.000 | 285.000 | 14.582 |
| 6848.000 | 5000.000 | 259.250 | 13.587 |
| 6839.200 | 5000.000 | 221.000 | 12.700 |
| 6830.400 | 5000.000 | 241.000 | 12.262 |
| 6821.600 | 5000.000 | 272.000 | 12.875 |
| 6812.800 | 5000.000 | 268.250 | 12.915 |
| 6804.000 | 5000.000 | 275.000 | 13.342 |
| 6795.200 | 5000.000 | 297.250 | 16.175 |
| 6786.400 | 5000.000 | 232.000 | 18.657 |
| 6777.600 | 5000.000 | 459.000 | 20.477 |

| | | | |
|---|---|---|---|
| 6768.800 | 5000.000 | 592.250 | 20.477 |
| 6760.000 | 5000.000 | 471.000 | 20.477 |
| 6751.200 | 5000.000 | 486.750 | 20.477 |
| 6742.400 | 5000.000 | 535.250 | 20.477 |
| 6733.600 | 5000.000 | 652.250 | 20.477 |
| 6724.800 | 5000.000 | 545.000 | 20.477 |
| 6716.000 | 5000.000 | 567.250 | 20.477 |
| 6707.200 | 5000.000 | 517.000 | 20.477 |
| 6698.400 | 5000.000 | 625.250 | 20.477 |
| 6689.600 | 5000.000 | 483.000 | 20.477 |
| 6680.800 | 5000.000 | 468.500 | 20.477 |
| 6672.000 | 5000.000 | 408.250 | 20.477 |
| 6663.200 | 5000.000 | 343.250 | 20.477 |
| 6654.400 | 5000.000 | 275.000 | 17.090 |
| 6645.600 | 5000.000 | 208.250 | 9.037 |
| 6636.800 | 5000.000 | 155.000 | 7.157 |
| 6628.000 | 5000.000 | 164.000 | 5.285 |
| 6619.200 | 5000.000 | 138.250 | 4.035 |
| 6610.400 | 5000.000 | 117.000 | 3.415 |
| 6601.600 | 5000.000 | 102.000 | 1.497 |
| 6592.800 | 5000.000 | 91.750 | 0.730 |
| 6584.000 | 5000.000 | 81.500 | 0.310 |
| 6575.200 | 5000.000 | 73.000 | 0.292 |
| 6566.400 | 5000.000 | 80.000 | -0.020 |
| 6557.600 | 5000.000 | 78.500 | 0.100 |
| 6548.800 | 5000.000 | 82.000 | -0.110 |
| 6540.000 | 5000.000 | 87.500 | -0.240 |
| 6531.200 | 5000.000 | 83.000 | -0.080 |
| 6522.400 | 5000.000 | 81.000 | -0.099 |
| 6513.600 | 5000.000 | 78.250 | -0.640 |
| 6504.800 | 5000.000 | 79.000 | -0.750 |
| 6496.000 | 5000.000 | 82.000 | -0.622 |
| 6487.200 | 5000.000 | 81.750 | -0.760 |
| 6478.400 | 5000.000 | 81.000 | -1.070 |
| 6469.600 | 5000.000 | 79.500 | -1.050 |
| 6460.800 | 5000.000 | 80.000 | -1.310 |
| 6452.000 | 5000.000 | 79.000 | -1.840 |
| 6443.200 | 5000.000 | 72.000 | -0.930 |
| 6434.400 | 5000.000 | 69.000 | -0.861 |
| 6425.600 | 5000.000 | 68.000 | -1.500 |
| 6416.800 | 5000.000 | 65.000 | -2.102 |
| 6408.000 | 5000.000 | 60.000 | -2.192 |
| 6399.200 | 5000.000 | 60.000 | -1.362 |
| 6390.400 | 5000.000 | 52.500 | -2.025 |
| 6381.600 | 5000.000 | 54.500 | -1.470 |
| 6372.800 | 5000.000 | 55.000 | -1.360 |
| 6364.000 | 5000.000 | 54.500 | -1.540 |
| 6355.200 | 5000.000 | 53.000 | -1.450 |
| 6346.400 | 5000.000 | 50.000 | -1.400 |
| 6337.600 | 5000.000 | 51.000 | -1.500 |

| | | | |
|---|---|---|---|
| 6328.800 | 5000.000 | 53.000 | -1.800 |
| 6320.000 | 5000.000 | 54.000 | -1.985 |
| 6311.200 | 5000.000 | 52.000 | -1.707 |
| 6302.400 | 5000.000 | 52.000 | -1.140 |
| 6293.600 | 5000.000 | 55.750 | -1.490 |
| 6284.800 | 5000.000 | 55.000 | -1.610 |
| 6276.000 | 5000.000 | 51.000 | -1.780 |
| 6267.200 | 5000.000 | 55.000 | -1.650 |
| 6258.400 | 5000.000 | 55.000 | -1.550 |
| 6249.600 | 5000.000 | 55.000 | -1.610 |
| 6240.800 | 5000.000 | 56.250 | -1.280 |
| 6232.000 | 5000.000 | 56.250 | -1.420 |
| 6223.200 | 5000.000 | 58.000 | -1.192 |
| 6214.400 | 5000.000 | 57.500 | -1.305 |
| 6205.600 | 5000.000 | 57.250 | -1.220 |
| 6196.800 | 5000.000 | 56.000 | -1.220 |
| 6188.000 | 5000.000 | 57.000 | -1.450 |
| 6179.200 | 5000.000 | 57.000 | -1.540 |
| 6170.400 | 5000.000 | 57.000 | -1.267 |
| 6161.600 | 5000.000 | 56.000 | -1.350 |
| 6152.800 | 5000.000 | 56.000 | -1.372 |
| 6144.000 | 5000.000 | 55.000 | -1.560 |
| 6135.200 | 5000.000 | 54.500 | -1.540 |
| 6126.400 | 5000.000 | 56.250 | -1.392 |
| 6117.600 | 5000.000 | 58.250 | -1.350 |
| 6108.800 | 5000.000 | 59.000 | -1.310 |
| 6100.000 | 5000.000 | 62.000 | -1.120 |
| 6091.200 | 5000.000 | 64.000 | -1.110 |
| 6082.400 | 5000.000 | 75.000 | -0.590 |
| 6073.600 | 5000.000 | 73.000 | -0.976 |
| 6064.800 | 5000.000 | 75.000 | -1.162 |
| 6056.000 | 5000.000 | 81.000 | 0.080 |
| 6047.200 | 5000.000 | 80.500 | 0.240 |
| 6038.400 | 5000.000 | 78.500 | -0.300 |
| 6029.600 | 5000.000 | 78.000 | -0.640 |
| 6020.800 | 5000.000 | 78.000 | -0.445 |
| 6012.000 | 5000.000 | 76.000 | -0.670 |
| 6003.200 | 5000.000 | 73.500 | -0.350 |
| 5994.400 | 5000.000 | 72.750 | -0.580 |
| 5985.600 | 5000.000 | 67.000 | -0.770 |
| 5976.800 | 5000.000 | 69.000 | -0.520 |
| 5968.000 | 5000.000 | 65.000 | -0.715 |
| 5959.200 | 5000.000 | 60.000 | -1.170 |
| 5950.400 | 5000.000 | 58.000 | -0.910 |
| 5941.600 | 5000.000 | 54.500 | -0.980 |
| 5932.800 | 5000.000 | 51.000 | -1.430 |
| 5924.000 | 5000.000 | 45.250 | -1.390 |
| 5915.200 | 5000.000 | 47.000 | -1.390 |
| 5906.400 | 5000.000 | 48.000 | -1.080 |
| 5897.600 | 5000.000 | 48.000 | -1.380 |

| | | | |
|---|---|---|---|
| 5888.800 | 5000.000 | 50.000 | -1.280 |
| 5880.000 | 5000.000 | 50.000 | -1.140 |
| 5871.200 | 5000.000 | 48.000 | -1.400 |
| 5862.400 | 5000.000 | 47.000 | -1.470 |
| 5853.600 | 5000.000 | 46.000 | -1.455 |
| 5844.800 | 5000.000 | 47.000 | -1.420 |
| 5836.000 | 5000.000 | 46.000 | -1.170 |
| 5827.200 | 5000.000 | 44.000 | -1.290 |
| 5818.400 | 5000.000 | 42.000 | -1.177 |
| 5809.600 | 5000.000 | 41.750 | -1.340 |
| 5800.800 | 5000.000 | 38.250 | -1.767 |
| 5792.000 | 5000.000 | 39.000 | -2.040 |
| 5783.200 | 5000.000 | 41.000 | -1.270 |
| 5774.400 | 5000.000 | 43.000 | -0.550 |
| 5765.600 | 5000.000 | 44.000 | -0.145 |
| 5756.800 | 5000.000 | 46.000 | 0.330 |
| 5748.000 | 5000.000 | 46.000 | 0.545 |
| 5739.200 | 5000.000 | 45.000 | 0.440 |
| 5730.400 | 5000.000 | 41.000 | -0.420 |
| 5721.600 | 5000.000 | 39.000 | -1.410 |
| 5712.800 | 5000.000 | 38.000 | -1.437 |
| 5704.000 | 5000.000 | 38.000 | -1.560 |
| 5695.200 | 5000.000 | 40.000 | -1.390 |
| 5686.400 | 5000.000 | 40.000 | -1.500 |
| 5677.600 | 5000.000 | 39.250 | -1.410 |
| 5668.800 | 5000.000 | 41.000 | -1.320 |
| 5660.000 | 5000.000 | 41.000 | -1.420 |
| 5651.200 | 5000.000 | 37.000 | -1.720 |
| 5642.400 | 5000.000 | 37.000 | -1.850 |
| 5633.600 | 5000.000 | 40.000 | -1.330 |
| 5624.800 | 5000.000 | 41.000 | -1.417 |
| 5616.000 | 5000.000 | 37.000 | -1.940 |
| 5607.200 | 5000.000 | 36.000 | -1.917 |
| 5598.400 | 5000.000 | 38.000 | -1.630 |
| 5589.600 | 5000.000 | 42.000 | -1.285 |
| 5580.800 | 5000.000 | 41.000 | -1.270 |
| 5572.000 | 5000.000 | 44.000 | -1.300 |
| 5563.200 | 5000.000 | 44.500 | -1.240 |
| 5554.400 | 5000.000 | 47.000 | -1.320 |
| 5545.600 | 5000.000 | 47.000 | -1.540 |
| 5536.800 | 5000.000 | 47.000 | -1.580 |
| 5528.000 | 5000.000 | 47.000 | -1.370 |
| 5519.200 | 5000.000 | 48.000 | -1.350 |
| 5510.400 | 5000.000 | 48.000 | -1.430 |
| 5501.600 | 5000.000 | 49.000 | -1.517 |
| 5492.800 | 5000.000 | 50.000 | -1.487 |
| 5484.000 | 5000.000 | 48.000 | -1.330 |
| 5475.200 | 5000.000 | 49.750 | -1.210 |
| 5466.400 | 5000.000 | 49.000 | -1.312 |
| 5457.600 | 5000.000 | 47.750 | -1.350 |

| | | | |
|---|---|---|---|
| 5448.800 | 5000.000 | 46.000 | -1.390 |
| 5440.000 | 5000.000 | 44.000 | -1.520 |
| 5431.200 | 5000.000 | 41.000 | -1.900 |
| 5422.400 | 5000.000 | 42.250 | -1.597 |
| 5413.600 | 5000.000 | 43.000 | -1.507 |
| 5404.800 | 5000.000 | 48.000 | -1.460 |
| 5396.000 | 5000.000 | 64.000 | -1.580 |
| 5387.200 | 5000.000 | 81.000 | -1.250 |
| 5378.400 | 5000.000 | 108.000 | -0.680 |
| 5369.600 | 5000.000 | 137.000 | 1.380 |
| 5360.800 | 5000.000 | 141.000 | 2.760 |
| 5352.000 | 5000.000 | 143.000 | 4.680 |
| 5343.200 | 5000.000 | 139.000 | 5.342 |
| 5334.400 | 5000.000 | 124.250 | 5.370 |
| 5325.600 | 5000.000 | 118.000 | 5.290 |
| 5316.800 | 5000.000 | 111.000 | 5.115 |
| 5308.000 | 5000.000 | 104.000 | 5.405 |
| 5299.200 | 5000.000 | 93.000 | 4.815 |
| 5290.400 | 5000.000 | 84.000 | 4.845 |
| 5281.600 | 5000.000 | 86.750 | 4.580 |
| 5272.800 | 5000.000 | 86.000 | 4.710 |
| 5264.000 | 5000.000 | 79.000 | 4.037 |
| 5255.200 | 5000.000 | 78.000 | 4.550 |
| 5246.400 | 5000.000 | 82.000 | 4.110 |
| 5237.600 | 5000.000 | 88.000 | 5.432 |
| 5228.800 | 5000.000 | 90.000 | 5.990 |
| 5220.000 | 5000.000 | 98.000 | 6.325 |
| 5211.200 | 5000.000 | 104.250 | 7.122 |
| 5202.400 | 5000.000 | 107.000 | 7.160 |
| 5193.600 | 5000.000 | 104.000 | 6.680 |
| 5184.800 | 5000.000 | 103.000 | 7.247 |
| 5176.000 | 5000.000 | 106.000 | 7.702 |
| 5167.200 | 5000.000 | 107.000 | 7.700 |
| 5158.400 | 5000.000 | 102.000 | 6.947 |
| 5149.600 | 5000.000 | 99.000 | 6.732 |
| 5140.800 | 5000.000 | 95.000 | 6.340 |
| 5132.000 | 5000.000 | 96.000 | 6.370 |
| 5123.200 | 5000.000 | 95.000 | 6.380 |
| 5114.400 | 5000.000 | 92.000 | 5.790 |
| 5105.600 | 5000.000 | 94.000 | 5.000 |
| 5096.800 | 5000.000 | 89.000 | 4.750 |
| 5088.000 | 5000.000 | 90.000 | 4.700 |
| 5079.200 | 5000.000 | 89.000 | 4.440 |
| 5070.400 | 5000.000 | 88.000 | 4.350 |
| 5061.600 | 5000.000 | 88.000 | 4.247 |
| 5052.800 | 5000.000 | 92.000 | 4.350 |
| 5044.000 | 5000.000 | 88.000 | 4.040 |
| 5035.200 | 5000.000 | 84.000 | 3.760 |
| 5026.400 | 5000.000 | 78.250 | 3.440 |
| 5017.600 | 5000.000 | 77.000 | 3.650 |

| | | | |
|---|---|---|---|
| 5008.800 | 5000.000 | 76.000 | 3.892 |
| 5000.000 | 5000.000 | 72.000 | 3.245 |
| 5050.000 | 5100.000 | 35.500 | -2.390 |
| 5058.383 | 5100.000 | 36.000 | -2.470 |
| 5066.766 | 5100.000 | 37.000 | -2.400 |
| 5075.148 | 5100.000 | 40.000 | -2.320 |
| 5083.531 | 5100.000 | 40.000 | -2.317 |
| 5091.914 | 5100.000 | 43.000 | -2.455 |
| 5100.297 | 5100.000 | 43.250 | -2.350 |
| 5108.680 | 5100.000 | 45.000 | -2.267 |
| 5117.063 | 5100.000 | 46.250 | -2.222 |
| 5125.445 | 5100.000 | 46.000 | -2.242 |
| 5133.829 | 5100.000 | 48.000 | -2.190 |
| 5142.211 | 5100.000 | 48.000 | -2.162 |
| 5150.594 | 5100.000 | 48.000 | -2.190 |
| 5158.977 | 5100.000 | 49.000 | -2.277 |
| 5167.360 | 5100.000 | 49.000 | -2.340 |
| 5175.743 | 5100.000 | 49.000 | -2.320 |
| 5184.125 | 5100.000 | 45.000 | -2.200 |
| 5192.508 | 5100.000 | 46.000 | -2.230 |
| 5200.891 | 5100.000 | 44.000 | -2.280 |
| 5209.274 | 5100.000 | 43.000 | -2.080 |
| 5217.657 | 5100.000 | 43.250 | -2.480 |
| 5226.040 | 5100.000 | 43.000 | -2.385 |
| 5234.422 | 5100.000 | 46.000 | -2.310 |
| 5242.805 | 5100.000 | 46.000 | -2.290 |
| 5251.188 | 5100.000 | 49.000 | -2.220 |
| 5259.571 | 5100.000 | 47.000 | -2.357 |
| 5267.954 | 5100.000 | 51.000 | -2.187 |
| 5276.336 | 5100.000 | 49.000 | -2.310 |
| 5284.719 | 5100.000 | 49.000 | -2.190 |
| 5293.103 | 5100.000 | 48.000 | -2.352 |
| 5301.485 | 5100.000 | 46.500 | -2.280 |
| 5309.868 | 5100.000 | 45.250 | -2.520 |
| 5318.251 | 5100.000 | 44.000 | -2.380 |
| 5326.634 | 5100.000 | 44.000 | -2.410 |
| 5335.017 | 5100.000 | 43.750 | -2.332 |
| 5343.399 | 5100.000 | 43.000 | -2.430 |
| 5351.782 | 5100.000 | 42.000 | -2.497 |
| 5360.165 | 5100.000 | 41.000 | -2.410 |
| 5368.548 | 5100.000 | 42.250 | -2.337 |
| 5376.931 | 5100.000 | 43.500 | -2.430 |
| 5385.313 | 5100.000 | 42.000 | -2.440 |
| 5393.696 | 5100.000 | 41.000 | -2.540 |
| 5402.079 | 5100.000 | 43.000 | -2.355 |
| 5410.462 | 5100.000 | 41.000 | -2.370 |
| 5418.845 | 5100.000 | 42.000 | -2.400 |
| 5427.228 | 5100.000 | 41.000 | -2.350 |
| 5435.610 | 5100.000 | 40.000 | -2.487 |
| 5443.993 | 5100.000 | 39.000 | -2.540 |

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|---|---|---|---|
| 5452.376 | 5100.000 | 41.000 | -2.450 |
| 5460.759 | 5100.000 | 40.000 | -2.500 |
| 5469.142 | 5100.000 | 39.000 | -2.440 |
| 5477.525 | 5100.000 | 40.000 | -2.430 |
| 5485.908 | 5100.000 | 40.500 | -2.422 |
| 5494.291 | 5100.000 | 39.000 | -2.520 |
| 5502.673 | 5100.000 | 38.750 | -2.590 |
| 5511.056 | 5100.000 | 38.000 | -2.537 |
| 5519.439 | 5100.000 | 36.000 | -2.717 |
| 5527.822 | 5100.000 | 34.000 | -2.650 |
| 5536.205 | 5100.000 | 34.000 | -2.550 |
| 5544.587 | 5100.000 | 33.000 | -2.727 |
| 5552.970 | 5100.000 | 31.250 | -2.560 |
| 5561.353 | 5100.000 | 32.000 | -2.752 |
| 5569.736 | 5100.000 | 31.750 | -2.570 |
| 5578.119 | 5100.000 | 31.000 | -2.675 |
| 5586.501 | 5100.000 | 30.250 | -2.630 |
| 5594.884 | 5100.000 | 31.000 | -2.852 |
| 5603.267 | 5100.000 | 33.000 | -2.555 |
| 5611.650 | 5100.000 | 31.000 | -2.760 |
| 5620.033 | 5100.000 | 32.000 | -2.510 |
| 5628.416 | 5100.000 | 31.000 | -2.710 |
| 5636.799 | 5100.000 | 31.000 | -2.640 |
| 5645.182 | 5100.000 | 31.000 | -2.650 |
| 5653.564 | 5100.000 | 31.000 | -2.602 |
| 5661.947 | 5100.000 | 30.000 | -2.600 |
| 5670.330 | 5100.000 | 30.000 | -2.515 |
| 5678.713 | 5100.000 | 31.000 | -2.590 |
| 5687.096 | 5100.000 | 31.250 | -2.510 |
| 5695.479 | 5100.000 | 31.000 | -2.660 |
| 5703.861 | 5100.000 | 32.750 | -2.490 |
| 5712.244 | 5100.000 | 31.000 | -2.370 |
| 5720.627 | 5100.000 | 30.000 | -2.320 |
| 5729.010 | 5100.000 | 31.000 | -2.637 |
| 5737.393 | 5100.000 | 32.000 | -2.590 |
| 5745.775 | 5100.000 | 30.000 | -2.560 |
| 5754.158 | 5100.000 | 31.000 | -2.370 |
| 5762.541 | 5100.000 | 32.000 | -2.440 |
| 5770.924 | 5100.000 | 32.750 | -2.410 |
| 5779.307 | 5100.000 | 33.000 | -2.510 |
| 5787.690 | 5100.000 | 34.000 | -2.330 |
| 5796.073 | 5100.000 | 34.000 | -2.520 |
| 5804.456 | 5100.000 | 34.000 | -2.570 |
| 5812.838 | 5100.000 | 34.000 | -2.480 |
| 5821.221 | 5100.000 | 34.000 | -2.470 |
| 5829.604 | 5100.000 | 34.000 | -2.470 |
| 5837.987 | 5100.000 | 32.000 | -2.540 |
| 5846.370 | 5100.000 | 33.000 | -2.410 |
| 5854.752 | 5100.000 | 33.000 | -2.520 |
| 5863.135 | 5100.000 | 34.000 | -2.450 |

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|---|---|---|---|
| 5871.518 | 5100.000 | 34.000 | -2.570 |
| 5879.901 | 5100.000 | 35.000 | -2.540 |
| 5888.284 | 5100.000 | 34.000 | -2.430 |
| 5896.667 | 5100.000 | 35.000 | -2.370 |
| 5905.049 | 5100.000 | 37.000 | -2.460 |
| 5913.432 | 5100.000 | 37.000 | -2.390 |
| 5921.815 | 5100.000 | 40.000 | -2.297 |
| 5930.198 | 5100.000 | 43.000 | -2.380 |
| 5938.581 | 5100.000 | 44.000 | -2.460 |
| 5946.964 | 5100.000 | 44.250 | -2.227 |
| 5955.347 | 5100.000 | 48.250 | -2.290 |
| 5963.729 | 5100.000 | 48.000 | -2.030 |
| 5972.112 | 5100.000 | 49.000 | -2.270 |
| 5980.495 | 5100.000 | 50.500 | -2.270 |
| 5988.878 | 5100.000 | 51.000 | -2.420 |
| 5997.261 | 5100.000 | 55.000 | -2.280 |
| 6005.644 | 5100.000 | 54.000 | -2.330 |
| 6014.026 | 5100.000 | 53.750 | -2.620 |
| 6022.409 | 5100.000 | 55.250 | -2.107 |
| 6030.792 | 5100.000 | 58.000 | -2.060 |
| 6039.175 | 5100.000 | 58.000 | -2.300 |
| 6047.558 | 5100.000 | 59.250 | -2.030 |
| 6055.940 | 5100.000 | 60.000 | -1.967 |
| 6064.323 | 5100.000 | 59.250 | -2.240 |
| 6072.706 | 5100.000 | 60.250 | -2.010 |
| 6081.089 | 5100.000 | 62.000 | -1.977 |
| 6089.472 | 5100.000 | 67.250 | -2.322 |
| 6097.855 | 5100.000 | 64.000 | -2.480 |
| 6106.238 | 5100.000 | 63.000 | -2.070 |
| 6114.621 | 5100.000 | 64.250 | -1.917 |
| 6123.003 | 5100.000 | 65.000 | -2.310 |
| 6131.386 | 5100.000 | 66.000 | -1.760 |
| 6139.769 | 5100.000 | 69.000 | -1.700 |
| 6148.152 | 5100.000 | 68.000 | -1.550 |
| 6156.535 | 5100.000 | 70.000 | -1.750 |
| 6164.917 | 5100.000 | 73.000 | -1.730 |
| 6173.300 | 5100.000 | 73.000 | -1.570 |
| 6181.683 | 5100.000 | 73.000 | -1.710 |
| 6190.066 | 5100.000 | 73.000 | -1.510 |
| 6198.449 | 5100.000 | 74.000 | -1.530 |
| 6206.832 | 5100.000 | 74.000 | -1.510 |
| 6215.214 | 5100.000 | 75.000 | -1.550 |
| 6223.597 | 5100.000 | 70.000 | -1.660 |
| 6231.980 | 5100.000 | 70.000 | -1.490 |
| 6240.363 | 5100.000 | 69.000 | -1.490 |
| 6248.746 | 5100.000 | 68.000 | -1.617 |
| 6257.129 | 5100.000 | 67.000 | -1.550 |
| 6265.512 | 5100.000 | 69.000 | -1.530 |
| 6273.895 | 5100.000 | 72.000 | -1.580 |
| 6282.277 | 5100.000 | 72.000 | -1.730 |

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|---|---|---|---|
| 6290.660 | 5100.000 | 71.000 | -1.475 |
| 6299.043 | 5100.000 | 76.250 | -1.110 |
| 6307.426 | 5100.000 | 83.000 | -1.082 |
| 6315.809 | 5100.000 | 89.750 | -1.190 |
| 6324.191 | 5100.000 | 85.000 | -0.930 |
| 6332.574 | 5100.000 | 81.000 | -1.020 |
| 6340.957 | 5100.000 | 84.000 | -0.620 |
| 6349.340 | 5100.000 | 84.000 | -0.450 |
| 6357.723 | 5100.000 | 86.000 | -0.437 |
| 6366.105 | 5100.000 | 88.000 | 0.840 |
| 6374.488 | 5100.000 | 86.000 | -0.237 |
| 6382.871 | 5100.000 | 85.000 | -0.285 |
| 6391.254 | 5100.000 | 86.000 | -0.120 |
| 6399.637 | 5100.000 | 78.250 | -0.420 |
| 6408.020 | 5100.000 | 86.000 | 0.032 |
| 6416.403 | 5100.000 | 87.000 | 0.450 |
| 6424.786 | 5100.000 | 86.000 | 0.417 |
| 6433.168 | 5100.000 | 88.250 | 0.370 |
| 6441.551 | 5100.000 | 89.000 | 0.440 |
| 6449.934 | 5100.000 | 95.000 | 0.350 |
| 6458.317 | 5100.000 | 97.000 | 0.452 |
| 6466.700 | 5100.000 | 97.000 | 0.740 |
| 6475.083 | 5100.000 | 101.000 | 1.030 |
| 6483.465 | 5100.000 | 107.000 | 1.020 |
| 6491.848 | 5100.000 | 112.000 | 1.277 |
| 6500.231 | 5100.000 | 112.000 | 1.110 |
| 6508.614 | 5100.000 | 117.000 | 1.492 |
| 6516.997 | 5100.000 | 119.000 | 2.132 |
| 6525.379 | 5100.000 | 128.000 | 2.160 |
| 6533.762 | 5100.000 | 129.500 | 2.660 |
| 6542.145 | 5100.000 | 130.750 | 2.302 |
| 6550.528 | 5100.000 | 130.000 | 2.430 |
| 6558.911 | 5100.000 | 136.000 | 2.580 |
| 6567.294 | 5100.000 | 147.000 | 3.190 |
| 6575.677 | 5100.000 | 149.000 | 3.720 |
| 6584.060 | 5100.000 | 142.000 | 3.670 |
| 6592.442 | 5100.000 | 141.000 | 3.925 |
| 6600.825 | 5100.000 | 160.000 | 6.392 |
| 6609.208 | 5100.000 | 153.000 | 4.120 |
| 6617.591 | 5100.000 | 186.000 | 5.572 |
| 6625.974 | 5100.000 | 243.000 | 11.307 |
| 6634.356 | 5100.000 | 334.250 | 20.385 |
| 6642.739 | 5100.000 | 411.000 | 20.477 |
| 6651.122 | 5100.000 | 412.250 | 20.477 |
| 6659.505 | 5100.000 | 461.250 | 20.477 |
| 6667.888 | 5100.000 | 475.000 | 20.477 |
| 6676.271 | 5100.000 | 466.250 | 20.477 |
| 6684.653 | 5100.000 | 447.500 | 20.477 |
| 6693.036 | 5100.000 | 500.000 | 20.477 |
| 6701.419 | 5100.000 | 550.500 | 20.477 |

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|---|---|---|---|
| 6709.802 | 5100.000 | 371.000 | 20.477 |
| 6718.185 | 5100.000 | 427.000 | 20.477 |
| 6726.568 | 5100.000 | 298.500 | 20.477 |
| 6734.951 | 5100.000 | 322.250 | 20.477 |
| 6743.333 | 5100.000 | 345.000 | 20.477 |
| 6751.716 | 5100.000 | 241.750 | 15.020 |
| 6760.099 | 5100.000 | 177.250 | 11.380 |
| 6768.482 | 5100.000 | 231.000 | 11.010 |
| 6776.865 | 5100.000 | 208.000 | 9.890 |
| 6785.248 | 5100.000 | 199.250 | 9.960 |
| 6793.630 | 5100.000 | 107.000 | 3.587 |
| 6802.013 | 5100.000 | 256.000 | 11.152 |
| 6810.396 | 5100.000 | 259.000 | 11.775 |
| 6818.779 | 5100.000 | 222.000 | 10.420 |
| 6827.162 | 5100.000 | 216.250 | 10.937 |
| 6835.544 | 5100.000 | 240.000 | 12.517 |
| 6843.927 | 5100.000 | 265.250 | 12.520 |
| 6852.310 | 5100.000 | 145.000 | 7.180 |
| 6860.693 | 5100.000 | 261.500 | 13.685 |
| 6869.076 | 5100.000 | 245.000 | 13.092 |
| 6877.458 | 5100.000 | 203.000 | 4.592 |
| 6885.842 | 5100.000 | 181.250 | 12.085 |
| 6894.225 | 5100.000 | 155.000 | 10.202 |
| 6902.607 | 5100.000 | 232.000 | 16.310 |
| 6910.990 | 5100.000 | 255.250 | 20.477 |
| 6919.373 | 5100.000 | 223.250 | 19.162 |
| 6927.756 | 5100.000 | 221.250 | 20.477 |
| 6936.139 | 5100.000 | 219.000 | 6.685 |
| 6944.521 | 5100.000 | 297.500 | 20.477 |
| 6952.904 | 5100.000 | 407.500 | 20.477 |
| 6961.287 | 5100.000 | 321.250 | 20.477 |
| 6969.670 | 5100.000 | 504.250 | 20.477 |
| 6978.053 | 5100.000 | 406.250 | 20.477 |
| 6986.436 | 5100.000 | 507.500 | 20.477 |
| 6994.818 | 5100.000 | 434.500 | 20.477 |
| 7003.201 | 5100.000 | 256.250 | 19.775 |
| 7011.584 | 5100.000 | 113.500 | -11.732 |
| 7019.967 | 5100.000 | 226.000 | 20.477 |
| 7028.350 | 5100.000 | 205.250 | 20.477 |
| 7036.732 | 5100.000 | 212.250 | 20.477 |
| 7045.116 | 5100.000 | 205.250 | 20.477 |
| 7053.499 | 5100.000 | 176.000 | 14.702 |
| 7061.881 | 5100.000 | 130.000 | 11.817 |
| 7070.264 | 5100.000 | 215.750 | 20.477 |
| 7078.647 | 5100.000 | 282.250 | 20.477 |
| 7087.030 | 5100.000 | 290.750 | 20.477 |
| 7095.413 | 5100.000 | 216.500 | 20.477 |
| 7103.795 | 5100.000 | 122.000 | 12.395 |
| 7112.178 | 5100.000 | 157.000 | 20.477 |
| 7120.561 | 5100.000 | 178.250 | 20.477 |

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|---|---|---|---|
| 7128.944 | 5100.000 | 233.000 | 20.477 |
| 7137.327 | 5100.000 | 227.250 | 20.477 |
| 7145.709 | 5100.000 | 145.500 | 19.600 |
| 7154.092 | 5100.000 | 118.000 | 17.365 |
| 7162.475 | 5100.000 | 283.750 | 20.477 |
| 7170.858 | 5100.000 | 351.000 | 20.477 |
| 7179.241 | 5100.000 | 524.500 | 20.477 |
| 7187.624 | 5100.000 | 383.250 | 20.477 |
| 7196.007 | 5100.000 | 328.250 | 20.477 |
| 7204.390 | 5100.000 | 390.750 | 20.477 |
| 7212.772 | 5100.000 | 229.250 | 14.977 |
| 7221.155 | 5100.000 | 234.250 | 2.630 |
| 7229.538 | 5100.000 | 404.250 | 20.477 |
| 7237.921 | 5100.000 | 264.750 | 20.477 |
| 7246.304 | 5100.000 | 204.000 | 12.715 |
| 7254.687 | 5100.000 | 138.000 | 7.417 |
| 7263.069 | 5100.000 | 212.000 | 6.820 |
| 7271.452 | 5100.000 | 181.000 | 5.610 |
| 7279.835 | 5100.000 | 174.000 | 6.002 |
| 7288.218 | 5100.000 | 193.000 | 6.225 |
| 7296.601 | 5100.000 | 187.000 | 7.015 |
| 7304.983 | 5100.000 | 264.000 | 11.070 |
| 7313.366 | 5100.000 | 283.000 | 12.405 |
| 7321.749 | 5100.000 | 299.000 | 14.102 |
| 7330.132 | 5100.000 | 139.500 | 4.460 |
| 7338.515 | 5100.000 | 101.000 | 0.320 |
| 7346.897 | 5100.000 | 184.000 | 5.780 |
| 7355.281 | 5100.000 | 183.000 | 4.320 |
| 7363.664 | 5100.000 | 127.000 | 1.860 |
| 7372.046 | 5100.000 | 97.000 | 1.315 |
| 7380.429 | 5100.000 | 113.000 | 0.670 |
| 7388.812 | 5100.000 | 80.000 | -0.140 |
| 7397.195 | 5100.000 | 108.000 | -0.195 |
| 7405.578 | 5100.000 | 85.750 | -0.840 |
| 7413.960 | 5100.000 | 66.000 | -1.180 |
| 7422.343 | 5100.000 | 67.000 | -1.250 |
| 7430.726 | 5100.000 | 57.000 | 0.650 |
| 7439.109 | 5100.000 | 56.750 | 3.115 |
| 7447.492 | 5100.000 | 51.000 | 10.555 |
| 7455.875 | 5100.000 | 52.250 | 16.097 |
| 7464.257 | 5100.000 | 51.000 | 16.760 |
| 7472.640 | 5100.000 | 49.000 | 17.552 |
| 7481.023 | 5100.000 | 55.250 | 12.127 |
| 7489.406 | 5100.000 | 50.000 | 8.567 |
| 7497.789 | 5100.000 | 53.000 | 6.570 |
| 7506.171 | 5100.000 | 50.000 | 4.735 |
| 7514.555 | 5100.000 | 59.000 | 1.320 |
| 7522.938 | 5100.000 | 62.750 | 2.887 |
| 7531.320 | 5100.000 | 61.000 | 4.460 |
| 7539.703 | 5100.000 | 77.000 | 5.972 |

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|---|---|---|---|
| 7548.086 | 5100.000 | 92.000 | 9.315 |
| 7556.469 | 5100.000 | 122.000 | 14.602 |
| 7564.852 | 5100.000 | 133.000 | 16.735 |
| 7573.234 | 5100.000 | -10.750 | -18.030 |
| 7581.617 | 5100.000 | 40.250 | -1.530 |
| 7590.000 | 5100.000 | 179.250 | 20.477 |
| 5500.000 | 7639.000 | 89.300 | 0.520 |
| 5511.164 | 7639.000 | 89.600 | 0.860 |
| 5522.327 | 7639.000 | 95.025 | 1.120 |
| 5533.490 | 7639.000 | 90.600 | 1.800 |
| 5544.653 | 7639.000 | 88.900 | 3.232 |
| 5555.817 | 7639.000 | 104.575 | 20.477 |
| 5566.980 | 7639.000 | 167.725 | 20.477 |
| 5578.144 | 7639.000 | 204.775 | 20.477 |
| 5589.307 | 7639.000 | 191.550 | 11.250 |
| 5600.470 | 7639.000 | 102.075 | 2.510 |
| 5611.634 | 7639.000 | 204.775 | 20.477 |
| 5622.797 | 7639.000 | 202.075 | 2.732 |
| 5633.960 | 7639.000 | 204.775 | 13.382 |
| 5645.124 | 7639.000 | 174.000 | 8.262 |
| 5656.287 | 7639.000 | 90.650 | 2.647 |
| 5667.451 | 7639.000 | 98.000 | 0.777 |
| 5678.614 | 7639.000 | 104.900 | 5.550 |
| 5689.777 | 7639.000 | 105.600 | 3.267 |
| 5700.940 | 7639.000 | 103.100 | 2.282 |
| 5712.104 | 7639.000 | 100.050 | 1.942 |
| 5723.267 | 7639.000 | 100.425 | 1.540 |
| 5734.431 | 7639.000 | 97.075 | 1.380 |
| 5745.594 | 7639.000 | 97.900 | 1.232 |
| 5756.757 | 7639.000 | 97.700 | 1.320 |
| 5767.921 | 7639.000 | 98.025 | 1.210 |
| 5779.084 | 7639.000 | 98.275 | 1.120 |
| 5790.248 | 7639.000 | 98.300 | 1.280 |
| 5801.411 | 7639.000 | 98.075 | 1.030 |
| 5812.574 | 7639.000 | 97.100 | 1.030 |
| 5823.738 | 7639.000 | 96.100 | 1.040 |
| 5834.901 | 7639.000 | 96.825 | 0.900 |
| 5846.064 | 7639.000 | 97.700 | 0.960 |
| 5857.228 | 7639.000 | 94.300 | 0.917 |
| 5868.391 | 7639.000 | 93.300 | 0.860 |
| 5879.555 | 7639.000 | 92.500 | 0.837 |
| 5890.718 | 7639.000 | 94.400 | 0.780 |
| 5901.881 | 7639.000 | 95.400 | 0.870 |
| 5913.044 | 7639.000 | 92.475 | 0.780 |
| 5924.208 | 7639.000 | 93.400 | 0.905 |
| 5935.371 | 7639.000 | 93.400 | 0.850 |
| 5946.535 | 7639.000 | 96.525 | 0.860 |
| 5957.698 | 7639.000 | 94.375 | 0.822 |
| 5968.861 | 7639.000 | 93.875 | 0.860 |
| 5980.025 | 7639.000 | 96.200 | 0.790 |

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|---|---|---|---|
| 5991.188 | 7639.000 | 94.600 | 0.810 |
| 6002.352 | 7639.000 | 96.100 | 0.805 |
| 6013.515 | 7639.000 | 93.000 | 0.560 |
| 6024.678 | 7639.000 | 93.300 | 0.662 |
| 6035.842 | 7639.000 | 92.700 | 0.670 |
| 6047.005 | 7639.000 | 90.000 | 0.660 |
| 6058.168 | 7639.000 | 89.600 | 0.627 |
| 6069.332 | 7639.000 | 88.800 | 0.570 |
| 6080.495 | 7639.000 | 86.825 | 0.610 |
| 6091.658 | 7639.000 | 90.700 | 0.560 |
| 6102.822 | 7639.000 | 85.300 | 0.610 |
| 6113.985 | 7639.000 | 85.700 | 0.500 |
| 6125.148 | 7639.000 | 85.000 | 0.600 |
| 6136.312 | 7639.000 | 86.300 | 0.560 |
| 6147.475 | 7639.000 | 83.900 | 0.602 |
| 6158.639 | 7639.000 | 86.300 | 0.680 |
| 6169.802 | 7639.000 | 87.700 | 0.520 |
| 6180.965 | 7639.000 | 88.700 | 0.610 |
| 6192.129 | 7639.000 | 96.200 | 0.710 |
| 6203.292 | 7639.000 | 91.900 | 0.720 |
| 6214.456 | 7639.000 | 94.425 | 0.710 |
| 6225.619 | 7639.000 | 97.000 | 0.757 |
| 6236.782 | 7639.000 | 100.000 | 0.817 |
| 6247.945 | 7639.000 | 100.625 | 0.720 |
| 6259.109 | 7639.000 | 101.925 | 0.872 |
| 6270.272 | 7639.000 | 103.800 | 0.952 |
| 6281.436 | 7639.000 | 105.500 | 0.980 |
| 6292.599 | 7639.000 | 108.200 | 0.990 |
| 6303.762 | 7639.000 | 102.600 | 0.932 |
| 6314.926 | 7639.000 | 111.000 | 1.062 |
| 6326.089 | 7639.000 | 111.000 | 1.082 |
| 6337.252 | 7639.000 | 107.050 | 1.100 |
| 6348.416 | 7639.000 | 107.100 | 1.100 |
| 6359.579 | 7639.000 | 102.250 | 0.997 |
| 6370.743 | 7639.000 | 106.200 | 1.040 |
| 6381.906 | 7639.000 | 99.400 | 0.860 |
| 6393.069 | 7639.000 | 103.150 | 0.920 |
| 6404.233 | 7639.000 | 99.800 | 1.160 |
| 6415.396 | 7639.000 | 101.225 | 0.870 |
| 6426.560 | 7639.000 | 95.900 | 0.790 |
| 6437.723 | 7639.000 | 95.600 | 0.710 |
| 6448.886 | 7639.000 | 88.800 | 0.090 |
| 6460.049 | 7639.000 | 90.900 | 0.625 |
| 6471.213 | 7639.000 | 84.100 | 0.532 |
| 6482.376 | 7639.000 | 89.900 | 0.630 |
| 6493.540 | 7639.000 | 91.500 | 0.550 |
| 6504.703 | 7639.000 | 87.600 | 0.560 |
| 6515.866 | 7639.000 | 95.400 | 0.570 |
| 6527.030 | 7639.000 | 90.700 | 0.497 |
| 6538.193 | 7639.000 | 84.350 | 0.422 |

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| 6549.356 | 7639.000 | 80.000 | 0.460 |
| 6560.520 | 7639.000 | 80.575 | 0.520 |
| 6571.683 | 7639.000 | 81.100 | 0.295 |
| 6582.847 | 7639.000 | 78.400 | 0.270 |
| 6594.010 | 7639.000 | 76.200 | 0.210 |
| 6605.173 | 7639.000 | 73.800 | 0.220 |
| 6616.336 | 7639.000 | 70.000 | 0.050 |
| 6627.500 | 7639.000 | 69.600 | 0.290 |
| 6638.664 | 7639.000 | 67.000 | 0.040 |
| 6649.827 | 7639.000 | 64.400 | 0.090 |
| 6660.990 | 7639.000 | 61.900 | 0.022 |
| 6672.153 | 7639.000 | 64.725 | 0.150 |
| 6683.317 | 7639.000 | 63.575 | 0.020 |
| 6694.480 | 7639.000 | 65.300 | 0.170 |
| 6705.644 | 7639.000 | 66.325 | 0.040 |
| 6716.807 | 7639.000 | 68.100 | 0.220 |
| 6727.970 | 7639.000 | 69.400 | 0.250 |
| 6739.134 | 7639.000 | 69.500 | 0.210 |
| 6750.297 | 7639.000 | 70.700 | 0.270 |
| 6761.460 | 7639.000 | 71.000 | 0.110 |
| 6772.624 | 7639.000 | 71.700 | 0.190 |
| 6783.787 | 7639.000 | 72.400 | 0.070 |
| 6794.951 | 7639.000 | 67.700 | 0.270 |
| 6806.114 | 7639.000 | 73.400 | 0.130 |
| 6817.277 | 7639.000 | 80.400 | 0.305 |
| 6828.440 | 7639.000 | 79.300 | 0.290 |
| 6839.604 | 7639.000 | 87.200 | 0.470 |
| 6850.767 | 7639.000 | 91.000 | 0.390 |
| 6861.931 | 7639.000 | 76.700 | 0.397 |
| 6873.094 | 7639.000 | 85.300 | 0.402 |
| 6884.257 | 7639.000 | 79.100 | 0.300 |
| 6895.421 | 7639.000 | 77.200 | 0.180 |
| 6906.584 | 7639.000 | 74.625 | 0.245 |
| 6917.748 | 7639.000 | 83.100 | 0.140 |
| 6928.911 | 7639.000 | 76.100 | 0.145 |
| 6940.074 | 7639.000 | 75.400 | 0.220 |
| 6951.238 | 7639.000 | 72.400 | 0.260 |
| 6962.401 | 7639.000 | 82.000 | 0.322 |
| 6973.564 | 7639.000 | 72.725 | 0.240 |
| 6984.728 | 7639.000 | 72.575 | 0.032 |
| 6995.891 | 7639.000 | 82.000 | 0.340 |
| 7007.055 | 7639.000 | 83.300 | 0.280 |
| 7018.218 | 7639.000 | 93.400 | 0.380 |
| 7029.381 | 7639.000 | 74.800 | 0.190 |
| 7040.544 | 7639.000 | 80.900 | 0.242 |
| 7051.708 | 7639.000 | 71.800 | 0.330 |
| 7062.871 | 7639.000 | 76.700 | 0.190 |
| 7074.035 | 7639.000 | 68.800 | 0.120 |
| 7085.198 | 7639.000 | 73.850 | 0.070 |
| 7096.361 | 7639.000 | 67.100 | 0.237 |

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| 7107.525 | 7639.000 | 72.400 | 0.240 |
| 7118.688 | 7639.000 | 72.600 | 0.180 |
| 7129.852 | 7639.000 | 67.600 | 0.070 |
| 7141.015 | 7639.000 | 67.425 | -0.040 |
| 7152.178 | 7639.000 | 66.325 | -0.080 |
| 7163.342 | 7639.000 | 65.900 | -0.032 |
| 7174.505 | 7639.000 | 65.000 | 0.005 |
| 7185.668 | 7639.000 | 66.100 | -0.030 |
| 7196.832 | 7639.000 | 63.600 | 0.100 |
| 7207.995 | 7639.000 | 65.600 | 0.037 |
| 7219.158 | 7639.000 | 63.400 | -0.047 |
| 7230.322 | 7639.000 | 65.300 | -0.040 |
| 7241.485 | 7639.000 | 65.125 | -0.060 |
| 7252.648 | 7639.000 | 64.900 | -0.130 |
| 7263.812 | 7639.000 | 64.500 | -0.107 |
| 7274.975 | 7639.000 | 65.650 | -0.110 |
| 7286.139 | 7639.000 | 65.725 | -0.050 |
| 7297.302 | 7639.000 | 64.750 | -0.050 |
| 7308.465 | 7639.000 | 64.200 | -0.080 |
| 7319.629 | 7639.000 | 57.200 | -0.060 |
| 7330.792 | 7639.000 | 56.900 | -0.280 |
| 7341.956 | 7639.000 | 52.075 | -0.170 |
| 7353.119 | 7639.000 | 51.600 | -0.260 |
| 7364.282 | 7639.000 | 50.200 | -0.240 |
| 7375.445 | 7639.000 | 50.150 | -0.227 |
| 7386.609 | 7639.000 | 54.000 | -0.370 |
| 7397.772 | 7639.000 | 52.400 | -0.165 |
| 7408.936 | 7639.000 | 59.400 | -0.212 |
| 7420.099 | 7639.000 | 57.700 | -0.210 |
| 7431.262 | 7639.000 | 59.600 | -0.127 |
| 7442.426 | 7639.000 | 66.800 | -0.050 |
| 7453.589 | 7639.000 | 63.300 | -0.020 |
| 7464.752 | 7639.000 | 61.000 | -0.130 |
| 7475.916 | 7639.000 | 60.100 | -0.080 |
| 7487.079 | 7639.000 | 61.400 | -0.180 |
| 7498.243 | 7639.000 | 59.700 | -0.230 |
| 7509.406 | 7639.000 | 60.475 | -0.250 |
| 7520.569 | 7639.000 | 60.200 | -0.210 |
| 7531.733 | 7639.000 | 56.500 | -0.170 |
| 7542.896 | 7639.000 | 53.600 | -0.300 |
| 7554.060 | 7639.000 | 56.700 | -0.370 |
| 7565.223 | 7639.000 | 51.000 | -0.185 |
| 7576.386 | 7639.000 | 48.000 | -0.350 |
| 7587.549 | 7639.000 | 48.200 | -0.350 |
| 7598.713 | 7639.000 | 46.400 | -0.099 |
| 7609.876 | 7639.000 | 49.000 | -0.270 |
| 7621.040 | 7639.000 | 49.000 | -0.330 |
| 7632.203 | 7639.000 | 49.850 | -0.315 |
| 7643.366 | 7639.000 | 52.200 | -0.390 |
| 7654.530 | 7639.000 | 51.700 | -0.475 |

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| 7665.693 | 7639.000 | 49.600 | -0.435 |
| 7676.856 | 7639.000 | 52.500 | -0.022 |
| 7688.020 | 7639.000 | 52.200 | -0.190 |
| 7699.183 | 7639.000 | 55.400 | -0.300 |
| 7710.347 | 7639.000 | 68.100 | -0.277 |
| 7721.510 | 7639.000 | 8.200 | 0.632 |
| 7732.673 | 7639.000 | 71.075 | -0.552 |
| 7743.836 | 7639.000 | 51.200 | -0.066 |
| 7755.000 | 7639.000 | 50.600 | -0.210 |
| 7755.000 | 7500.000 | 48.800 | -3.460 |
| 7744.163 | 7499.711 | 48.900 | -3.477 |
| 7733.325 | 7499.423 | 38.600 | -1.180 |
| 7722.488 | 7499.135 | 37.200 | -0.960 |
| 7711.650 | 7498.847 | 40.000 | -0.985 |
| 7700.813 | 7498.558 | 38.675 | -0.640 |
| 7689.975 | 7498.270 | 40.200 | -0.060 |
| 7679.137 | 7497.981 | 41.400 | -0.430 |
| 7668.300 | 7497.693 | 45.725 | -0.327 |
| 7657.462 | 7497.405 | 49.200 | -0.490 |
| 7646.625 | 7497.116 | 51.700 | -0.425 |
| 7635.787 | 7496.828 | 53.100 | -0.170 |
| 7624.950 | 7496.540 | 59.075 | -0.255 |
| 7614.112 | 7496.251 | 56.600 | -0.250 |
| 7603.275 | 7495.963 | 56.500 | -0.330 |
| 7592.438 | 7495.675 | 59.800 | -0.122 |
| 7581.600 | 7495.386 | 60.700 | -0.170 |
| 7570.763 | 7495.098 | 59.000 | -0.150 |
| 7559.925 | 7494.810 | 60.800 | -0.140 |
| 7549.087 | 7494.521 | 60.100 | -0.240 |
| 7538.250 | 7494.233 | 60.900 | -0.260 |
| 7527.412 | 7493.944 | 61.100 | -0.020 |
| 7516.575 | 7493.656 | 61.300 | -0.287 |
| 7505.737 | 7493.368 | 61.100 | -0.170 |
| 7494.900 | 7493.080 | 59.100 | -0.220 |
| 7484.062 | 7492.791 | 58.900 | -0.290 |
| 7473.225 | 7492.502 | 61.200 | -0.197 |
| 7462.387 | 7492.214 | 56.900 | -0.320 |
| 7451.550 | 7491.926 | 58.600 | -0.187 |
| 7440.712 | 7491.638 | 58.900 | -0.262 |
| 7429.875 | 7491.349 | 60.400 | -0.020 |
| 7419.038 | 7491.061 | 58.700 | -0.190 |
| 7408.200 | 7490.772 | 60.300 | -0.197 |
| 7397.362 | 7490.484 | 62.300 | -0.080 |
| 7386.524 | 7490.196 | 61.600 | -0.112 |
| 7375.687 | 7489.907 | 63.400 | -0.050 |
| 7364.850 | 7489.619 | 62.600 | -0.250 |
| 7354.012 | 7489.331 | 64.400 | -0.017 |
| 7343.175 | 7489.042 | 62.800 | -0.040 |
| 7332.337 | 7488.754 | 62.900 | -0.120 |
| 7321.500 | 7488.466 | 61.600 | -0.130 |

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| 7310.662 | 7488.177 | 61.300 | -0.070 |
| 7299.825 | 7487.889 | 61.700 | -0.140 |
| 7288.987 | 7487.601 | 62.900 | -0.060 |
| 7278.150 | 7487.312 | 62.100 | -0.060 |
| 7267.313 | 7487.024 | 63.600 | -0.165 |
| 7256.474 | 7486.735 | 62.700 | -0.030 |
| 7245.637 | 7486.447 | 63.300 | -0.099 |
| 7234.799 | 7486.159 | 62.100 | -0.110 |
| 7223.962 | 7485.871 | 63.300 | -0.080 |
| 7213.125 | 7485.582 | 66.400 | -0.060 |
| 7202.287 | 7485.293 | 63.700 | -0.030 |
| 7191.449 | 7485.005 | 69.200 | -0.002 |
| 7180.612 | 7484.717 | 68.950 | 0.030 |
| 7169.774 | 7484.429 | 70.700 | 0.065 |
| 7158.937 | 7484.140 | 74.800 | 0.120 |
| 7148.100 | 7483.852 | 73.100 | 0.200 |
| 7137.262 | 7483.563 | 76.375 | 0.190 |
| 7126.425 | 7483.275 | 78.000 | 0.130 |
| 7115.587 | 7482.987 | 73.000 | 0.230 |
| 7104.749 | 7482.698 | 71.100 | 0.140 |
| 7093.912 | 7482.410 | 75.400 | 0.120 |
| 7083.074 | 7482.122 | 72.300 | 0.125 |
| 7072.237 | 7481.833 | 64.625 | 0.140 |
| 7061.399 | 7481.545 | 76.700 | 0.157 |
| 7050.562 | 7481.257 | 72.775 | 0.140 |
| 7039.724 | 7480.968 | 68.000 | 0.067 |
| 7028.887 | 7480.680 | 69.600 | 0.210 |
| 7018.049 | 7480.392 | 66.700 | -0.237 |
| 7007.212 | 7480.103 | 67.900 | 0.115 |
| 6996.375 | 7479.815 | 67.900 | 0.020 |
| 6985.537 | 7479.526 | 68.100 | 0.110 |
| 6974.700 | 7479.238 | 69.200 | 0.140 |
| 6963.861 | 7478.950 | 75.600 | 0.190 |
| 6953.024 | 7478.662 | 75.725 | 0.210 |
| 6942.187 | 7478.373 | 76.000 | 0.260 |
| 6931.349 | 7478.084 | 75.000 | 0.350 |
| 6920.512 | 7477.796 | 86.000 | 0.370 |
| 6909.674 | 7477.508 | 78.975 | 0.080 |
| 6898.837 | 7477.220 | 87.700 | 0.385 |
| 6887.999 | 7476.931 | 74.300 | 0.312 |
| 6877.162 | 7476.643 | 80.400 | 0.320 |
| 6866.324 | 7476.354 | 75.000 | 0.355 |
| 6855.487 | 7476.066 | 75.300 | 0.200 |
| 6844.649 | 7475.778 | 70.075 | 0.200 |
| 6833.812 | 7475.489 | 77.000 | 0.242 |
| 6822.974 | 7475.201 | 73.300 | 0.360 |
| 6812.136 | 7474.913 | 70.100 | 0.170 |
| 6801.299 | 7474.625 | 70.300 | 0.290 |
| 6790.461 | 7474.336 | 71.300 | 0.220 |
| 6779.624 | 7474.048 | 67.575 | 0.070 |

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| 6768.787 | 7473.759 | 69.300 | 0.110 |
| 6757.949 | 7473.471 | 67.100 | 0.160 |
| 6747.112 | 7473.183 | 66.700 | 0.132 |
| 6736.274 | 7472.894 | 64.500 | 0.050 |
| 6725.437 | 7472.606 | 66.200 | 0.215 |
| 6714.599 | 7472.317 | 65.100 | 0.020 |
| 6703.762 | 7472.029 | 62.375 | -0.030 |
| 6692.924 | 7471.741 | 66.100 | 0.150 |
| 6682.086 | 7471.453 | 65.300 | 0.090 |
| 6671.249 | 7471.164 | 66.600 | 0.027 |
| 6660.411 | 7470.875 | 67.575 | 0.097 |
| 6649.574 | 7470.587 | 70.700 | 0.100 |
| 6638.736 | 7470.299 | 69.500 | 0.152 |
| 6627.899 | 7470.011 | 70.400 | 0.232 |
| 6617.062 | 7469.722 | 70.000 | 0.180 |
| 6606.224 | 7469.434 | 69.700 | 0.140 |
| 6595.387 | 7469.146 | 71.450 | 0.260 |
| 6584.549 | 7468.857 | 70.475 | 0.097 |
| 6573.711 | 7468.569 | 70.100 | 0.230 |
| 6562.874 | 7468.280 | 73.100 | 0.250 |
| 6552.037 | 7467.992 | 71.525 | 0.190 |
| 6541.199 | 7467.704 | 72.500 | 0.260 |
| 6530.361 | 7467.416 | 72.300 | 0.080 |
| 6519.524 | 7467.127 | 67.500 | -0.610 |
| 6508.686 | 7466.839 | 69.700 | -0.207 |
| 6497.849 | 7466.550 | 69.450 | -0.410 |
| 6487.011 | 7466.262 | 70.100 | -0.047 |
| 6476.174 | 7465.974 | 69.400 | -0.270 |
| 6465.336 | 7465.685 | 73.700 | -0.070 |
| 6454.499 | 7465.397 | 72.800 | -0.060 |
| 6443.662 | 7465.108 | 74.200 | 0.150 |
| 6432.824 | 7464.820 | 75.875 | -0.040 |
| 6421.986 | 7464.532 | 75.000 | -0.127 |
| 6411.149 | 7464.244 | 75.750 | 0.072 |
| 6400.311 | 7463.955 | 75.300 | 0.060 |
| 6389.474 | 7463.667 | 76.000 | 0.140 |
| 6378.636 | 7463.378 | 76.850 | -0.090 |
| 6367.799 | 7463.090 | 77.900 | 0.260 |
| 6356.961 | 7462.802 | 77.100 | 0.130 |
| 6346.124 | 7462.513 | 78.800 | 0.110 |
| 6335.286 | 7462.225 | 78.500 | 0.090 |
| 6324.449 | 7461.937 | 77.700 | 0.200 |
| 6313.611 | 7461.648 | 76.900 | 0.170 |
| 6302.774 | 7461.360 | 78.500 | 0.340 |
| 6291.937 | 7461.071 | 83.900 | -0.531 |
| 6281.099 | 7460.783 | 77.700 | 0.422 |
| 6270.261 | 7460.495 | 77.100 | 0.350 |
| 6259.423 | 7460.207 | 78.000 | 0.112 |
| 6248.586 | 7459.918 | 76.400 | 0.230 |
| 6237.749 | 7459.630 | 76.500 | 0.260 |

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| 6226.911 | 7459.341 | 76.400 | 0.160 |
| 6216.074 | 7459.053 | 76.500 | 0.310 |
| 6205.236 | 7458.765 | 77.300 | 0.340 |
| 6194.398 | 7458.476 | 77.500 | 0.290 |
| 6183.561 | 7458.188 | 79.400 | 0.382 |
| 6172.724 | 7457.899 | 78.700 | 0.350 |
| 6161.886 | 7457.611 | 77.975 | 0.340 |
| 6151.049 | 7457.323 | 81.000 | 0.380 |
| 6140.211 | 7457.035 | 80.925 | 0.400 |
| 6129.374 | 7456.746 | 82.500 | 0.415 |
| 6118.536 | 7456.458 | 83.900 | 0.502 |
| 6107.698 | 7456.169 | 85.200 | 0.422 |
| 6096.861 | 7455.881 | 90.800 | 0.662 |
| 6086.023 | 7455.593 | 91.500 | 0.650 |
| 6075.186 | 7455.304 | 92.300 | 0.690 |
| 6064.348 | 7455.016 | 94.400 | 0.720 |
| 6053.511 | 7454.728 | 92.450 | 0.790 |
| 6042.673 | 7454.439 | 90.100 | 0.660 |
| 6031.836 | 7454.151 | 90.200 | 0.647 |
| 6020.999 | 7453.862 | 90.175 | 0.800 |
| 6010.161 | 7453.574 | 90.850 | 0.842 |
| 5999.324 | 7453.286 | 89.300 | 0.800 |
| 5988.486 | 7452.998 | 88.500 | 0.650 |
| 5977.648 | 7452.709 | 89.800 | 0.792 |
| 5966.811 | 7452.421 | 90.800 | 0.772 |
| 5955.973 | 7452.132 | 91.475 | 0.822 |
| 5945.136 | 7451.844 | 91.000 | 0.800 |
| 5934.298 | 7451.556 | 91.600 | 1.030 |
| 5923.461 | 7451.267 | 87.700 | 0.980 |
| 5912.623 | 7450.979 | 87.200 | 1.120 |
| 5901.786 | 7450.690 | 89.000 | 1.327 |
| 5890.948 | 7450.402 | 87.600 | 1.892 |
| 5880.111 | 7450.114 | 95.225 | 3.010 |
| 5869.273 | 7449.826 | 67.775 | -2.015 |
| 5858.436 | 7449.537 | 84.200 | 2.925 |
| 5847.599 | 7449.249 | 83.550 | 2.730 |
| 5836.761 | 7448.960 | 78.300 | 1.822 |
| 5825.923 | 7448.672 | 79.700 | 1.860 |
| 5815.085 | 7448.384 | 86.500 | 2.000 |
| 5804.248 | 7448.095 | 103.125 | 4.017 |
| 5793.411 | 7447.807 | 31.925 | -8.920 |
| 5782.573 | 7447.519 | 26.650 | -6.245 |
| 5771.736 | 7447.230 | 106.475 | 6.215 |
| 5760.898 | 7446.942 | 79.000 | 1.005 |
| 5750.061 | 7446.653 | 73.075 | 0.850 |
| 5739.223 | 7446.365 | 73.800 | 0.562 |
| 5728.386 | 7446.077 | 70.300 | 0.410 |
| 5717.548 | 7445.789 | 76.400 | 0.422 |
| 5706.711 | 7445.500 | 73.075 | 0.202 |
| 5695.874 | 7445.212 | 77.500 | 0.430 |

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| 5685.035 | 7444.923 | 79.300 | 0.570 |
| 5674.198 | 7444.635 | 79.400 | 0.680 |
| 5663.360 | 7444.347 | 78.900 | 0.720 |
| 5652.523 | 7444.058 | 82.200 | 0.750 |
| 5641.686 | 7443.770 | 85.825 | 0.580 |
| 5630.848 | 7443.481 | 84.400 | 0.720 |
| 5620.011 | 7443.193 | 86.625 | 0.650 |
| 5609.173 | 7442.905 | 86.100 | 0.720 |
| 5598.335 | 7442.617 | 83.325 | 0.700 |
| 5587.498 | 7442.328 | 81.400 | 0.472 |
| 5576.661 | 7442.040 | 81.400 | 0.842 |
| 5565.823 | 7441.751 | 79.925 | 0.900 |
| 5554.986 | 7441.463 | 78.200 | 0.540 |
| 5544.148 | 7441.175 | 80.700 | 0.640 |
| 5533.310 | 7440.886 | 80.600 | 0.630 |
| 5522.473 | 7440.598 | 82.100 | 0.720 |
| 5511.635 | 7440.310 | 84.500 | 0.320 |
| 5500.798 | 7440.021 | 87.625 | 0.610 |
| 5500.000 | 7499.000 | 76.400 | 0.070 |
| 5500.000 | 7486.854 | 77.600 | 0.430 |
| 5500.000 | 7474.708 | 81.100 | 0.370 |
| 5500.000 | 7462.561 | 81.300 | 0.320 |
| 5500.000 | 7450.415 | 85.500 | 0.190 |
| 5500.000 | 7438.268 | 82.400 | 0.400 |
| 5500.000 | 7426.122 | 86.300 | 0.290 |
| 5500.000 | 7413.976 | 83.175 | 0.270 |
| 5500.000 | 7401.829 | 85.000 | 0.380 |
| 5500.000 | 7389.683 | 81.500 | 0.202 |
| 5500.000 | 7377.537 | 82.900 | 0.270 |
| 5500.000 | 7365.390 | 82.725 | 0.150 |
| 5500.000 | 7353.244 | 82.600 | 0.300 |
| 5500.000 | 7341.098 | 82.500 | 0.070 |
| 5500.000 | 7328.951 | 82.950 | 0.212 |
| 5500.000 | 7316.805 | 81.300 | 0.150 |
| 5500.000 | 7304.659 | 84.300 | 0.180 |
| 5500.000 | 7292.512 | 84.200 | 0.195 |
| 5500.000 | 7280.366 | 83.075 | 0.202 |
| 5500.000 | 7268.220 | 84.950 | 0.210 |
| 5500.000 | 7256.073 | 84.400 | 0.300 |
| 5500.000 | 7243.927 | 84.900 | 0.320 |
| 5500.000 | 7231.780 | 85.900 | 0.212 |
| 5500.000 | 7219.634 | 85.200 | 0.172 |
| 5500.000 | 7207.488 | 86.200 | 0.292 |
| 5500.000 | 7195.341 | 84.400 | 0.202 |
| 5500.000 | 7183.195 | 83.800 | 0.270 |
| 5500.000 | 7171.049 | 84.600 | 0.117 |
| 5500.000 | 7158.902 | 81.900 | -0.060 |
| 5500.000 | 7146.756 | 82.525 | 0.147 |
| 5500.000 | 7134.610 | 80.600 | 0.080 |
| 5500.000 | 7122.463 | 81.400 | 0.177 |

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| 5500.000 | 7110.317 | 81.000 | 0.135 |
| 5500.000 | 7098.171 | 82.000 | 0.160 |
| 5500.000 | 7086.024 | 80.400 | 0.240 |
| 5500.000 | 7073.878 | 80.600 | 0.252 |
| 5500.000 | 7061.732 | 83.600 | 0.247 |
| 5500.000 | 7049.585 | 83.350 | 0.162 |
| 5500.000 | 7037.439 | 83.600 | 0.230 |
| 5500.000 | 7025.292 | 84.600 | 0.300 |
| 5500.000 | 7013.146 | 84.600 | 0.320 |
| 5500.000 | 7001.000 | 82.200 | 0.200 |
| 5500.000 | 7000.000 | 85.400 | 0.290 |
| 5511.504 | 6999.873 | 87.800 | 0.360 |
| 5523.009 | 6999.745 | 89.000 | 0.460 |
| 5534.513 | 6999.617 | 87.200 | 0.480 |
| 5546.018 | 6999.490 | 88.400 | 0.530 |
| 5557.522 | 6999.362 | 87.900 | 0.572 |
| 5569.026 | 6999.235 | 89.600 | 0.695 |
| 5580.531 | 6999.107 | 90.700 | 0.450 |
| 5592.035 | 6998.979 | 100.775 | 0.745 |
| 5603.540 | 6998.852 | 98.200 | 0.760 |
| 5615.044 | 6998.725 | 96.725 | 0.750 |
| 5626.548 | 6998.597 | 94.600 | 0.772 |
| 5638.053 | 6998.470 | 95.200 | 0.805 |
| 5649.557 | 6998.342 | 86.800 | 1.332 |
| 5661.062 | 6998.214 | 91.975 | 1.430 |
| 5672.566 | 6998.087 | 93.500 | 2.270 |
| 5684.070 | 6997.959 | 107.725 | 1.360 |
| 5695.575 | 6997.832 | 85.525 | 1.420 |
| 5707.079 | 6997.704 | 115.700 | 0.780 |
| 5718.583 | 6997.577 | 76.200 | 1.472 |
| 5730.088 | 6997.449 | 110.800 | 1.240 |
| 5741.592 | 6997.322 | 94.350 | 1.180 |
| 5753.097 | 6997.194 | 99.700 | 0.820 |
| 5764.601 | 6997.066 | 91.675 | 0.770 |
| 5776.105 | 6996.939 | 93.000 | 0.630 |
| 5787.610 | 6996.812 | 92.900 | 0.777 |
| 5799.114 | 6996.684 | 93.700 | 0.797 |
| 5810.619 | 6996.556 | 96.600 | 0.785 |
| 5822.123 | 6996.429 | 94.500 | 0.892 |
| 5833.627 | 6996.301 | 95.075 | 0.960 |
| 5845.132 | 6996.174 | 93.775 | 0.940 |
| 5856.636 | 6996.046 | 95.825 | 0.960 |
| 5868.141 | 6995.918 | 97.400 | 0.937 |
| 5879.645 | 6995.791 | 99.100 | 1.140 |
| 5891.149 | 6995.664 | 97.400 | 1.090 |
| 5902.654 | 6995.536 | 98.825 | 0.972 |
| 5914.158 | 6995.408 | 101.900 | 1.075 |
| 5925.663 | 6995.281 | 99.800 | 1.140 |
| 5937.167 | 6995.153 | 102.450 | 1.237 |
| 5948.671 | 6995.026 | 99.800 | 1.160 |

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|---|---|---|---|
| 5960.176 | 6994.898 | 100.700 | 1.000 |
| 5971.680 | 6994.771 | 103.100 | 1.240 |
| 5983.185 | 6994.643 | 100.600 | 1.270 |
| 5994.689 | 6994.516 | 98.500 | 0.412 |
| 6006.193 | 6994.388 | 97.675 | 0.982 |
| 6017.698 | 6994.261 | 98.900 | 1.010 |
| 6029.202 | 6994.133 | 90.400 | 1.042 |
| 6040.707 | 6994.005 | 87.500 | 0.990 |
| 6052.211 | 6993.878 | 86.300 | 0.850 |
| 6063.715 | 6993.750 | 84.800 | 0.830 |
| 6075.220 | 6993.623 | 77.200 | 0.557 |
| 6086.724 | 6993.495 | 78.800 | 0.790 |
| 6098.229 | 6993.368 | 81.300 | 1.110 |
| 6109.733 | 6993.240 | 86.900 | 1.750 |
| 6121.237 | 6993.113 | 123.900 | 5.550 |
| 6132.742 | 6992.985 | 9.675 | -7.776 |
| 6144.246 | 6992.857 | 73.600 | 1.477 |
| 6155.750 | 6992.730 | 84.125 | 2.020 |
| 6167.255 | 6992.603 | 73.100 | 1.390 |
| 6178.759 | 6992.475 | 77.900 | 1.785 |
| 6190.264 | 6992.347 | 80.200 | 2.180 |
| 6201.768 | 6992.220 | 85.400 | 4.030 |
| 6213.272 | 6992.092 | 73.225 | 0.837 |
| 6224.777 | 6991.965 | 78.275 | -0.747 |
| 6236.281 | 6991.837 | 94.500 | 3.277 |
| 6247.786 | 6991.709 | 91.075 | 1.740 |
| 6259.290 | 6991.582 | 87.700 | 1.260 |
| 6270.794 | 6991.455 | 89.550 | 0.940 |
| 6282.299 | 6991.327 | 89.000 | 1.070 |
| 6293.803 | 6991.200 | 90.200 | 0.880 |
| 6305.308 | 6991.072 | 90.725 | 0.880 |
| 6316.812 | 6990.944 | 91.825 | 1.010 |
| 6328.316 | 6990.817 | 89.500 | 0.950 |
| 6339.821 | 6990.689 | 91.800 | 0.862 |
| 6351.325 | 6990.562 | 94.300 | 0.920 |
| 6362.830 | 6990.434 | 90.600 | 0.882 |
| 6374.334 | 6990.307 | 90.450 | 0.922 |
| 6385.838 | 6990.179 | 93.700 | 0.912 |
| 6397.343 | 6990.052 | 92.800 | 0.890 |
| 6408.847 | 6989.924 | 92.800 | 0.850 |
| 6420.352 | 6989.796 | 91.900 | 0.827 |
| 6431.856 | 6989.669 | 90.000 | 0.880 |
| 6443.360 | 6989.542 | 90.900 | 0.867 |
| 6454.865 | 6989.414 | 91.400 | 0.890 |
| 6466.369 | 6989.286 | 90.725 | 0.980 |
| 6477.874 | 6989.159 | 92.225 | 1.022 |
| 6489.378 | 6989.031 | 95.100 | 1.070 |
| 6500.882 | 6988.904 | 94.500 | 0.970 |
| 6512.387 | 6988.776 | 93.900 | 0.860 |
| 6523.891 | 6988.648 | 96.200 | 1.130 |

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|---|---|---|---|
| 6535.396 | 6988.521 | 94.600 | 0.927 |
| 6546.900 | 6988.394 | 97.700 | 0.930 |
| 6558.404 | 6988.266 | 92.475 | 0.710 |
| 6569.909 | 6988.139 | 88.700 | 0.827 |
| 6581.413 | 6988.011 | 88.500 | 0.675 |
| 6592.917 | 6987.883 | 84.300 | 0.560 |
| 6604.422 | 6987.756 | 82.800 | 0.550 |
| 6615.926 | 6987.628 | 82.200 | 0.530 |
| 6627.431 | 6987.501 | 81.300 | 0.530 |
| 6638.935 | 6987.373 | 80.900 | 0.432 |
| 6650.439 | 6987.246 | 81.300 | 0.510 |
| 6661.944 | 6987.118 | 80.900 | 0.440 |
| 6673.448 | 6986.991 | 81.325 | 0.477 |
| 6684.953 | 6986.863 | 81.700 | 0.405 |
| 6696.457 | 6986.735 | 81.600 | 0.577 |
| 6707.961 | 6986.608 | 83.825 | 0.470 |
| 6719.466 | 6986.480 | 84.450 | 0.700 |
| 6730.970 | 6986.353 | 86.850 | 0.592 |
| 6742.475 | 6986.225 | 86.800 | 0.560 |
| 6753.979 | 6986.098 | 87.800 | 0.620 |
| 6765.483 | 6985.970 | 84.700 | 0.590 |
| 6776.988 | 6985.843 | 84.300 | 0.560 |
| 6788.492 | 6985.715 | 82.625 | 0.580 |
| 6799.997 | 6985.587 | 80.025 | 0.510 |
| 6811.501 | 6985.460 | 80.375 | 0.420 |
| 6823.005 | 6985.333 | 77.100 | 0.360 |
| 6834.510 | 6985.205 | 74.000 | 0.330 |
| 6846.014 | 6985.078 | 73.825 | 0.280 |
| 6857.519 | 6984.950 | 72.100 | 0.170 |
| 6869.023 | 6984.822 | 73.925 | 0.260 |
| 6880.527 | 6984.695 | 71.675 | 0.250 |
| 6892.032 | 6984.567 | 75.200 | 0.290 |
| 6903.536 | 6984.440 | 76.750 | 0.260 |
| 6915.041 | 6984.312 | 77.275 | 0.440 |
| 6926.545 | 6984.185 | 79.700 | 0.510 |
| 6938.049 | 6984.057 | 80.500 | 0.430 |
| 6949.554 | 6983.930 | 82.100 | 0.500 |
| 6961.058 | 6983.802 | 83.900 | 0.530 |
| 6972.563 | 6983.674 | 84.700 | 0.607 |
| 6984.067 | 6983.547 | 83.700 | 0.650 |
| 6995.571 | 6983.419 | 85.000 | 0.740 |
| 7007.076 | 6983.292 | 85.850 | 0.640 |
| 7018.580 | 6983.164 | 85.225 | 0.502 |
| 7030.084 | 6983.037 | 84.700 | 0.520 |
| 7041.589 | 6982.909 | 83.300 | 0.490 |
| 7053.093 | 6982.782 | 85.700 | 0.610 |
| 7064.598 | 6982.654 | 84.600 | 0.680 |
| 7076.102 | 6982.526 | 86.100 | 0.715 |
| 7087.606 | 6982.399 | 86.000 | 0.607 |
| 7099.111 | 6982.271 | 86.100 | 0.775 |

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|---|---|---|---|
| 7110.615 | 6982.144 | 85.400 | 0.610 |
| 7122.120 | 6982.017 | 87.200 | 0.710 |
| 7133.624 | 6981.889 | 86.850 | 0.720 |
| 7145.128 | 6981.761 | 89.200 | 0.720 |
| 7156.633 | 6981.634 | 89.200 | 0.725 |
| 7168.137 | 6981.506 | 88.100 | 0.732 |
| 7179.642 | 6981.379 | 89.100 | 0.830 |
| 7191.146 | 6981.251 | 92.500 | 1.435 |
| 7202.650 | 6981.124 | 90.300 | 0.650 |
| 7214.155 | 6980.996 | 90.700 | 0.572 |
| 7225.659 | 6980.869 | 90.400 | 0.750 |
| 7237.164 | 6980.741 | 90.000 | 0.770 |
| 7248.668 | 6980.613 | 86.700 | 0.680 |
| 7260.172 | 6980.486 | 87.700 | 0.720 |
| 7271.677 | 6980.358 | 86.000 | 0.540 |
| 7283.181 | 6980.231 | 83.700 | 0.560 |
| 7294.686 | 6980.103 | 81.500 | 0.440 |
| 7306.190 | 6979.976 | 81.550 | 0.420 |
| 7317.694 | 6979.848 | 80.550 | 0.440 |
| 7329.199 | 6979.721 | 80.300 | 0.345 |
| 7340.703 | 6979.593 | 78.700 | 0.380 |
| 7352.208 | 6979.465 | 79.600 | 0.532 |
| 7363.712 | 6979.338 | 78.400 | 0.320 |
| 7375.216 | 6979.210 | 76.300 | 0.400 |
| 7386.721 | 6979.083 | 76.700 | 0.302 |
| 7398.225 | 6978.956 | 75.800 | 0.330 |
| 7409.729 | 6978.828 | 78.400 | 0.852 |
| 7421.234 | 6978.700 | 74.400 | 0.245 |
| 7432.738 | 6978.573 | 79.100 | 1.157 |
| 7444.243 | 6978.445 | 75.975 | 0.270 |
| 7455.747 | 6978.318 | 74.800 | 0.240 |
| 7467.251 | 6978.190 | 74.000 | 0.240 |
| 7478.756 | 6978.063 | 72.000 | 0.465 |
| 7490.260 | 6977.935 | 79.600 | 1.260 |
| 7501.765 | 6977.808 | 69.800 | 0.225 |
| 7513.269 | 6977.680 | 77.000 | 1.172 |
| 7524.773 | 6977.552 | 69.000 | 0.210 |
| 7536.278 | 6977.425 | 72.575 | 0.717 |
| 7547.782 | 6977.297 | 69.975 | 0.030 |
| 7559.287 | 6977.170 | 72.200 | 0.232 |
| 7570.791 | 6977.042 | 73.200 | 0.190 |
| 7582.295 | 6976.915 | 73.425 | 0.300 |
| 7593.800 | 6976.787 | 71.300 | 0.280 |
| 7605.304 | 6976.660 | 75.800 | 0.180 |
| 7616.809 | 6976.532 | 74.300 | 0.330 |
| 7628.313 | 6976.404 | 75.000 | 0.180 |
| 7639.817 | 6976.277 | 74.825 | 0.230 |
| 7651.322 | 6976.149 | 75.900 | 0.302 |
| 7662.826 | 6976.022 | 75.600 | 0.282 |
| 7674.331 | 6975.895 | 78.300 | 0.240 |

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|---|---|---|---|
| 7685.835 | 6975.767 | 73.900 | 0.372 |
| 7697.339 | 6975.639 | 70.700 | 0.260 |
| 7708.844 | 6975.512 | 75.600 | -1.140 |
| 7720.348 | 6975.384 | 70.200 | -3.030 |
| 7731.853 | 6975.257 | 65.900 | -2.150 |
| 7743.357 | 6975.129 | 64.300 | 0.220 |
| 7754.861 | 6975.001 | 67.400 | 0.135 |
| 7755.000 | 6500.000 | 80.375 | 0.280 |
| 7744.825 | 6500.000 | 84.125 | -0.022 |
| 7734.649 | 6500.000 | 68.950 | -0.590 |
| 7724.474 | 6500.000 | 66.200 | -0.647 |
| 7714.298 | 6500.000 | 72.000 | -3.160 |
| 7704.123 | 6500.000 | 72.700 | -2.340 |
| 7693.948 | 6500.000 | 75.600 | -1.852 |
| 7683.772 | 6500.000 | 80.300 | -0.160 |
| 7673.597 | 6500.000 | 79.100 | 0.400 |
| 7663.422 | 6500.000 | 82.075 | 0.787 |
| 7653.246 | 6500.000 | 83.125 | 0.570 |
| 7643.071 | 6500.000 | 82.600 | 1.010 |
| 7632.896 | 6500.000 | 83.600 | 1.100 |
| 7622.720 | 6500.000 | 84.800 | 0.862 |
| 7612.545 | 6500.000 | 80.900 | 0.792 |
| 7602.370 | 6500.000 | 80.600 | 0.710 |
| 7592.194 | 6500.000 | 79.950 | 0.850 |
| 7582.019 | 6500.000 | 82.900 | 1.177 |
| 7571.843 | 6500.000 | 83.450 | 1.100 |
| 7561.668 | 6500.000 | 86.000 | 1.130 |
| 7551.493 | 6500.000 | 88.100 | 1.072 |
| 7541.317 | 6500.000 | 88.050 | 1.000 |
| 7531.142 | 6500.000 | 92.300 | 1.130 |
| 7520.966 | 6500.000 | 92.000 | 1.260 |
| 7510.791 | 6500.000 | 90.500 | 1.522 |
| 7500.616 | 6500.000 | 92.300 | 1.817 |
| 7490.440 | 6500.000 | 92.700 | 1.440 |
| 7480.265 | 6500.000 | 93.600 | 1.282 |
| 7470.089 | 6500.000 | 94.700 | 1.057 |
| 7459.914 | 6500.000 | 93.000 | 1.100 |
| 7449.739 | 6500.000 | 90.225 | 0.950 |
| 7439.563 | 6500.000 | 91.475 | 1.532 |
| 7429.388 | 6500.000 | 93.600 | 1.355 |
| 7419.213 | 6500.000 | 90.100 | 1.100 |
| 7409.037 | 6500.000 | 88.800 | 1.370 |
| 7398.862 | 6500.000 | 88.100 | 0.990 |
| 7388.687 | 6500.000 | 91.300 | 1.580 |
| 7378.511 | 6500.000 | 85.650 | 1.180 |
| 7368.336 | 6500.000 | 87.400 | 1.690 |
| 7358.161 | 6500.000 | 88.500 | 2.440 |
| 7347.985 | 6500.000 | 90.000 | 1.060 |
| 7337.810 | 6500.000 | 92.100 | 1.022 |
| 7327.634 | 6500.000 | 92.725 | 0.912 |

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|---|---|---|---|
| 7317.459 | 6500.000 | 90.400 | 1.050 |
| 7307.284 | 6500.000 | 89.600 | 0.932 |
| 7297.108 | 6500.000 | 84.700 | 0.730 |
| 7286.933 | 6500.000 | 83.800 | 0.770 |
| 7276.757 | 6500.000 | 83.700 | 0.772 |
| 7266.582 | 6500.000 | 81.900 | 0.840 |
| 7256.407 | 6500.000 | 82.450 | 0.590 |
| 7246.231 | 6500.000 | 79.825 | 0.545 |
| 7236.056 | 6500.000 | 81.225 | 0.680 |
| 7225.880 | 6500.000 | 82.325 | 0.610 |
| 7215.705 | 6500.000 | 81.725 | 0.660 |
| 7205.530 | 6500.000 | 78.225 | 0.502 |
| 7195.354 | 6500.000 | 79.400 | 0.640 |
| 7185.179 | 6500.000 | 79.400 | 0.490 |
| 7175.004 | 6500.000 | 75.400 | 0.472 |
| 7164.828 | 6500.000 | 75.000 | 0.480 |
| 7154.653 | 6500.000 | 76.500 | 0.530 |
| 7144.478 | 6500.000 | 76.600 | 0.480 |
| 7134.302 | 6500.000 | 76.525 | 0.340 |
| 7124.127 | 6500.000 | 81.550 | 0.530 |
| 7113.952 | 6500.000 | 79.800 | 0.630 |
| 7103.776 | 6500.000 | 85.925 | 0.500 |
| 7093.601 | 6500.000 | 88.500 | 0.780 |
| 7083.425 | 6500.000 | 89.775 | 0.832 |
| 7073.250 | 6500.000 | 85.600 | 0.752 |
| 7063.075 | 6500.000 | 85.100 | 0.760 |
| 7052.899 | 6500.000 | 86.350 | 0.972 |
| 7042.724 | 6500.000 | 84.300 | 0.800 |
| 7032.548 | 6500.000 | 86.800 | 0.840 |
| 7022.373 | 6500.000 | 88.800 | 0.917 |
| 7012.198 | 6500.000 | 88.400 | 0.962 |
| 7002.022 | 6500.000 | 88.300 | 0.872 |
| 6991.847 | 6500.000 | 91.150 | 0.920 |
| 6981.672 | 6500.000 | 92.025 | 1.075 |
| 6971.496 | 6500.000 | 87.400 | 0.920 |
| 6961.321 | 6500.000 | 91.500 | 0.930 |
| 6951.146 | 6500.000 | 91.500 | 1.015 |
| 6940.970 | 6500.000 | 94.400 | 1.030 |
| 6930.795 | 6500.000 | 90.625 | 1.052 |
| 6920.620 | 6500.000 | 91.900 | 0.942 |
| 6910.444 | 6500.000 | 92.000 | 1.070 |
| 6900.269 | 6500.000 | 93.000 | 1.010 |
| 6890.093 | 6500.000 | 91.600 | 0.970 |
| 6879.918 | 6500.000 | 91.800 | 1.110 |
| 6869.743 | 6500.000 | 92.525 | 0.972 |
| 6859.567 | 6500.000 | 95.800 | 0.972 |
| 6849.392 | 6500.000 | 96.200 | 1.170 |
| 6839.216 | 6500.000 | 95.000 | 0.970 |
| 6829.041 | 6500.000 | 97.300 | 1.160 |
| 6818.866 | 6500.000 | 95.300 | 1.130 |

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|---|---|---|---|
| 6808.690 | 6500.000 | 95.800 | 1.220 |
| 6798.515 | 6500.000 | 96.400 | 1.082 |
| 6788.339 | 6500.000 | 95.400 | 1.300 |
| 6778.164 | 6500.000 | 96.100 | 1.110 |
| 6767.989 | 6500.000 | 96.300 | 1.180 |
| 6757.813 | 6500.000 | 95.900 | 1.210 |
| 6747.638 | 6500.000 | 97.700 | 1.130 |
| 6737.463 | 6500.000 | 98.875 | 1.260 |
| 6727.287 | 6500.000 | 96.200 | 1.310 |
| 6717.112 | 6500.000 | 98.300 | 1.190 |
| 6706.937 | 6500.000 | 95.800 | 1.250 |
| 6696.761 | 6500.000 | 96.550 | 1.300 |
| 6686.586 | 6500.000 | 102.075 | 1.480 |
| 6676.411 | 6500.000 | 102.800 | 1.342 |
| 6666.235 | 6500.000 | 101.800 | 1.310 |
| 6656.060 | 6500.000 | 101.100 | 1.560 |
| 6645.884 | 6500.000 | 92.200 | 2.420 |
| 6635.709 | 6500.000 | 84.975 | 1.650 |
| 6625.534 | 6500.000 | 79.600 | 1.570 |
| 6615.358 | 6500.000 | 85.300 | 1.820 |
| 6605.183 | 6500.000 | 80.300 | 1.620 |
| 6595.007 | 6500.000 | 82.500 | 1.957 |
| 6584.832 | 6500.000 | 97.300 | 3.800 |
| 6574.657 | 6500.000 | 71.800 | -2.175 |
| 6564.481 | 6500.000 | 69.025 | -1.062 |
| 6554.306 | 6500.000 | 94.200 | 4.290 |
| 6544.130 | 6500.000 | 96.025 | 3.142 |
| 6533.955 | 6500.000 | 99.975 | 2.670 |
| 6523.780 | 6500.000 | 95.800 | 2.627 |
| 6513.604 | 6500.000 | 69.300 | 0.420 |
| 6503.429 | 6500.000 | 50.100 | -6.725 |
| 6493.254 | 6500.000 | 75.950 | 1.902 |
| 6483.078 | 6500.000 | 55.850 | 4.455 |
| 6472.903 | 6500.000 | 130.250 | 5.030 |
| 6462.728 | 6500.000 | 136.425 | 1.892 |
| 6452.552 | 6500.000 | 117.275 | 2.300 |
| 6442.377 | 6500.000 | 104.300 | 2.680 |
| 6432.202 | 6500.000 | 103.325 | 2.510 |
| 6422.026 | 6500.000 | 107.125 | 1.700 |
| 6411.851 | 6500.000 | 104.925 | 2.052 |
| 6401.675 | 6500.000 | 98.800 | 1.842 |
| 6391.500 | 6500.000 | 94.600 | 1.830 |
| 6381.325 | 6500.000 | 95.200 | 2.160 |
| 6371.149 | 6500.000 | 98.700 | 2.710 |
| 6360.974 | 6500.000 | 147.800 | 2.550 |
| 6350.798 | 6500.000 | 137.150 | 3.090 |
| 6340.623 | 6500.000 | 107.100 | 2.797 |
| 6330.448 | 6500.000 | 109.875 | 2.990 |
| 6320.272 | 6500.000 | 114.200 | 3.560 |
| 6310.097 | 6500.000 | 124.800 | 3.320 |

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|---|---|---|---|
| 6299.922 | 6500.000 | 129.500 | 3.720 |
| 6289.746 | 6500.000 | 134.900 | 3.670 |
| 6279.571 | 6500.000 | 136.400 | 3.870 |
| 6269.396 | 6500.000 | 143.700 | 3.902 |
| 6259.220 | 6500.000 | 135.100 | 3.780 |
| 6249.045 | 6500.000 | 150.775 | 4.167 |
| 6238.870 | 6500.000 | 143.775 | 4.430 |
| 6228.694 | 6500.000 | 141.500 | 4.900 |
| 6218.519 | 6500.000 | 141.800 | 5.440 |
| 6208.343 | 6500.000 | 146.100 | 5.910 |
| 6198.168 | 6500.000 | 157.325 | 6.945 |
| 6187.993 | 6500.000 | 158.375 | 7.107 |
| 6177.817 | 6500.000 | 204.775 | 9.960 |
| 6167.642 | 6500.000 | 204.775 | 11.610 |
| 6157.466 | 6500.000 | 189.100 | 11.567 |
| 6147.291 | 6500.000 | 204.775 | 13.500 |
| 6137.116 | 6500.000 | 182.925 | 12.207 |
| 6126.940 | 6500.000 | 171.400 | 12.805 |
| 6116.765 | 6500.000 | 204.775 | 17.520 |
| 6106.589 | 6500.000 | 204.775 | 20.477 |
| 6096.414 | 6500.000 | 118.250 | 0.285 |
| 6086.239 | 6500.000 | 114.200 | 2.797 |
| 6076.063 | 6500.000 | 204.775 | 20.477 |
| 6065.888 | 6500.000 | 204.775 | 20.477 |
| 6055.713 | 6500.000 | 181.425 | 6.445 |
| 6045.537 | 6500.000 | 179.975 | 8.202 |
| 6035.362 | 6500.000 | 121.925 | -0.445 |
| 6025.187 | 6500.000 | 203.075 | 9.512 |
| 6015.011 | 6500.000 | 204.775 | 15.015 |
| 6004.836 | 6500.000 | 204.775 | 11.907 |
| 5994.661 | 6500.000 | 204.775 | 9.957 |
| 5984.485 | 6500.000 | 204.775 | 9.692 |
| 5974.310 | 6500.000 | 204.775 | 10.197 |
| 5964.134 | 6500.000 | 197.875 | 10.230 |
| 5953.959 | 6500.000 | 204.775 | 11.192 |
| 5943.784 | 6500.000 | 204.775 | 10.952 |
| 5933.608 | 6500.000 | 204.775 | 10.670 |
| 5923.433 | 6500.000 | 204.775 | 11.050 |
| 5913.257 | 6500.000 | 204.775 | 12.712 |
| 5903.082 | 6500.000 | 204.775 | 12.885 |
| 5892.907 | 6500.000 | 204.775 | 14.337 |
| 5882.731 | 6500.000 | 204.775 | 11.525 |
| 5872.556 | 6500.000 | 204.775 | 10.322 |
| 5862.380 | 6500.000 | 204.775 | 10.567 |
| 5852.205 | 6500.000 | 172.925 | 8.920 |
| 5842.030 | 6500.000 | 204.775 | 8.272 |
| 5831.854 | 6500.000 | 178.600 | 7.492 |
| 5821.679 | 6500.000 | 185.900 | 7.820 |
| 5811.504 | 6500.000 | 182.675 | 8.820 |
| 5801.328 | 6500.000 | 172.125 | 9.067 |

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|---|---|---|---|
| 5791.153 | 6500.000 | 172.700 | 9.622 |
| 5780.978 | 6500.000 | 185.500 | 10.742 |
| 5770.802 | 6500.000 | 204.775 | 12.370 |
| 5760.627 | 6500.000 | 204.775 | 12.960 |
| 5750.452 | 6500.000 | 204.775 | 13.567 |
| 5740.276 | 6500.000 | 204.775 | 15.732 |
| 5730.101 | 6500.000 | 204.775 | 20.477 |
| 5719.925 | 6500.000 | 146.425 | 13.955 |
| 5709.750 | 6500.000 | 204.775 | 20.062 |
| 5699.575 | 6500.000 | 53.025 | 2.777 |
| 5689.399 | 6500.000 | 204.775 | 9.615 |
| 5679.224 | 6500.000 | 204.775 | 10.897 |
| 5669.048 | 6500.000 | 204.775 | 9.235 |
| 5658.873 | 6500.000 | 176.950 | 6.100 |
| 5648.698 | 6500.000 | 178.550 | 5.435 |
| 5638.522 | 6500.000 | 141.950 | 3.735 |
| 5628.347 | 6500.000 | 138.600 | 3.392 |
| 5618.172 | 6500.000 | 123.200 | 2.940 |
| 5607.996 | 6500.000 | 139.650 | 2.780 |
| 5597.821 | 6500.000 | 137.325 | 3.260 |
| 5587.646 | 6500.000 | 152.675 | 3.620 |
| 5577.470 | 6500.000 | 153.675 | 3.800 |
| 5567.295 | 6500.000 | 132.725 | 3.615 |
| 5557.120 | 6500.000 | 148.000 | 3.397 |
| 5546.944 | 6500.000 | 133.700 | 3.070 |
| 5536.769 | 6500.000 | 128.100 | 2.770 |
| 5526.593 | 6500.000 | 118.100 | 2.737 |
| 5516.418 | 6500.000 | 117.900 | 2.440 |
| 5506.243 | 6500.000 | 119.100 | 2.340 |
| 5496.067 | 6500.000 | 115.400 | 2.520 |
| 5485.892 | 6500.000 | 116.100 | 2.362 |
| 5475.716 | 6500.000 | 121.575 | 2.437 |
| 5465.541 | 6500.000 | 125.100 | 2.462 |
| 5455.366 | 6500.000 | 125.000 | 2.920 |
| 5445.190 | 6500.000 | 134.300 | 2.872 |
| 5435.015 | 6500.000 | 126.400 | 2.812 |
| 5424.839 | 6500.000 | 131.600 | 2.880 |
| 5414.664 | 6500.000 | 127.700 | 2.700 |
| 5404.489 | 6500.000 | 133.700 | 2.937 |
| 5394.313 | 6500.000 | 126.000 | 2.922 |
| 5384.138 | 6500.000 | 140.325 | 3.180 |
| 5373.963 | 6500.000 | 137.125 | 3.127 |
| 5363.787 | 6500.000 | 140.650 | 3.360 |
| 5353.612 | 6500.000 | 137.900 | 3.220 |
| 5343.437 | 6500.000 | 141.225 | 3.260 |
| 5333.261 | 6500.000 | 139.675 | 3.190 |
| 5323.086 | 6500.000 | 141.600 | 3.190 |
| 5312.911 | 6500.000 | 134.900 | 2.852 |
| 5302.735 | 6500.000 | 129.500 | 2.360 |
| 5292.560 | 6500.000 | 126.700 | 2.732 |

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|---|---|---|---|
| 5282.384 | 6500.000 | 123.700 | 2.680 |
| 5272.209 | 6500.000 | 131.700 | 3.070 |
| 5262.034 | 6500.000 | 135.300 | 3.180 |
| 5251.858 | 6500.000 | 141.325 | 3.500 |
| 5241.683 | 6500.000 | 158.600 | 3.730 |
| 5231.507 | 6500.000 | 152.975 | 4.070 |
| 5221.332 | 6500.000 | 164.175 | 3.910 |
| 5211.157 | 6500.000 | 135.800 | 3.982 |
| 5200.981 | 6500.000 | 143.200 | 3.397 |
| 5190.806 | 6500.000 | 132.300 | 3.170 |
| 5180.630 | 6500.000 | 125.100 | 2.790 |
| 5170.455 | 6500.000 | 124.350 | 2.820 |
| 5160.280 | 6500.000 | 129.100 | 2.522 |
| 5150.104 | 6500.000 | 126.600 | 2.690 |
| 5139.929 | 6500.000 | 123.350 | 2.800 |
| 5129.754 | 6500.000 | 130.500 | 2.800 |
| 5119.579 | 6500.000 | 128.100 | 2.820 |
| 5109.403 | 6500.000 | 131.000 | 2.780 |
| 5099.228 | 6500.000 | 135.300 | 2.960 |
| 5089.052 | 6500.000 | 132.450 | 2.730 |
| 5078.877 | 6500.000 | 133.800 | 2.502 |
| 5068.702 | 6500.000 | 126.425 | 2.332 |
| 5058.526 | 6500.000 | 122.200 | 2.370 |
| 5048.351 | 6500.000 | 118.700 | 2.740 |
| 5038.175 | 6500.000 | 104.825 | 2.370 |
| 5028.000 | 6500.000 | 97.575 | 1.690 |
| 5000.000 | 6500.000 | 99.300 | 1.130 |
| 5001.145 | 6510.907 | 101.425 | 1.900 |
| 5002.290 | 6521.813 | 104.000 | 2.020 |
| 5003.435 | 6532.720 | 111.350 | 2.180 |
| 5004.580 | 6543.627 | 119.700 | 2.210 |
| 5005.724 | 6554.534 | 126.475 | 2.550 |
| 5006.869 | 6565.440 | 131.100 | 2.780 |
| 5008.014 | 6576.347 | 119.925 | 1.900 |
| 5009.159 | 6587.254 | 121.500 | 2.352 |
| 5010.304 | 6598.161 | 116.800 | 2.370 |
| 5011.449 | 6609.067 | 120.200 | 2.150 |
| 5012.593 | 6619.974 | 118.300 | 2.342 |
| 5013.738 | 6630.881 | 122.200 | 2.690 |
| 5014.883 | 6641.788 | 138.000 | 2.990 |
| 5016.028 | 6652.694 | 136.125 | 3.015 |
| 5017.173 | 6663.601 | 136.900 | 2.877 |
| 5018.318 | 6674.508 | 135.600 | 2.902 |
| 5019.463 | 6685.415 | 136.800 | 2.602 |
| 5020.607 | 6696.321 | 132.800 | 2.820 |
| 5021.752 | 6707.228 | 139.100 | 3.050 |
| 5022.897 | 6718.135 | 136.000 | 2.907 |
| 5024.042 | 6729.042 | 138.000 | 3.070 |
| 5025.187 | 6739.948 | 142.850 | 3.157 |
| 5026.332 | 6750.855 | 139.500 | 3.022 |

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|---|---|---|---|
| 5027.477 | 6761.762 | 137.900 | 3.192 |
| 5028.622 | 6772.669 | 132.400 | 3.012 |
| 5029.767 | 6783.575 | 130.525 | 2.847 |
| 5030.911 | 6794.482 | 131.700 | 2.892 |
| 5032.056 | 6805.389 | 134.900 | 3.135 |
| 5033.201 | 6816.296 | 139.200 | 3.200 |
| 5034.346 | 6827.202 | 140.300 | 2.910 |
| 5035.491 | 6838.109 | 137.100 | 3.150 |
| 5036.636 | 6849.016 | 131.425 | 3.042 |
| 5037.781 | 6859.923 | 132.800 | 2.840 |
| 5038.925 | 6870.829 | 129.600 | 2.490 |
| 5040.070 | 6881.736 | 125.200 | 2.240 |
| 5041.215 | 6892.643 | 121.900 | 2.200 |
| 5042.360 | 6903.550 | 126.175 | 2.395 |
| 5043.505 | 6914.457 | 125.925 | 2.312 |
| 5044.650 | 6925.363 | 118.800 | 2.020 |
| 5027.900 | 6928.700 | 68.800 | 0.450 |
| 5037.806 | 6930.231 | 78.875 | 0.740 |
| 5047.711 | 6931.762 | 100.650 | 1.270 |
| 5057.618 | 6933.292 | 105.550 | 1.580 |
| 5067.523 | 6934.823 | 118.525 | 1.990 |
| 5077.429 | 6936.354 | 128.500 | 2.350 |
| 5087.335 | 6937.885 | 130.700 | 2.720 |
| 5097.241 | 6939.416 | 133.450 | 2.990 |
| 5107.146 | 6940.946 | 138.300 | 3.080 |
| 5117.052 | 6942.477 | 140.125 | 3.340 |
| 5126.958 | 6944.008 | 146.900 | 3.510 |
| 5136.864 | 6945.539 | 139.500 | 3.490 |
| 5146.770 | 6947.069 | 141.000 | 3.070 |
| 5156.676 | 6948.600 | 137.100 | 3.110 |
| 5166.582 | 6950.131 | 126.800 | 3.810 |
| 5176.487 | 6951.662 | 144.750 | 4.170 |
| 5186.393 | 6953.192 | 146.500 | 4.320 |
| 5196.299 | 6954.723 | 144.100 | 3.440 |
| 5206.205 | 6956.254 | 141.700 | 3.550 |
| 5216.111 | 6957.785 | 138.000 | 3.620 |
| 5226.017 | 6959.315 | 138.800 | 3.680 |
| 5235.922 | 6960.846 | 138.200 | 3.460 |
| 5245.828 | 6962.377 | 134.000 | 3.380 |
| 5255.734 | 6963.908 | 137.200 | 3.470 |
| 5265.640 | 6965.438 | 136.000 | 3.350 |
| 5275.545 | 6966.969 | 140.375 | 3.472 |
| 5285.451 | 6968.500 | 134.425 | 3.250 |
| 5295.357 | 6970.031 | 134.550 | 3.170 |
| 5305.263 | 6971.562 | 133.200 | 3.000 |
| 5315.169 | 6973.092 | 134.600 | 2.860 |
| 5325.075 | 6974.623 | 124.600 | 2.820 |
| 5334.980 | 6976.154 | 118.500 | 2.370 |
| 5344.886 | 6977.685 | 117.000 | 2.442 |
| 5354.792 | 6979.215 | 103.825 | 1.815 |

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|---|---|---|---|
| 5364.698 | 6980.746 | 95.800 | 2.000 |
| 5374.604 | 6982.277 | 105.500 | 2.000 |
| 5384.510 | 6983.808 | 112.800 | 1.607 |
| 5394.416 | 6985.338 | 100.400 | 1.310 |
| 5404.322 | 6986.869 | 104.300 | 1.520 |
| 5414.227 | 6988.400 | 94.900 | 1.182 |
| 5424.133 | 6989.931 | 86.925 | 1.310 |
| 5434.039 | 6991.461 | 88.200 | 1.770 |
| 5443.944 | 6992.992 | 77.500 | 1.142 |
| 5453.851 | 6994.523 | 80.500 | 1.030 |
| 5463.756 | 6996.054 | 85.600 | 1.320 |
| 5473.662 | 6997.584 | 81.800 | 1.260 |
| 5483.568 | 6999.115 | 79.700 | 1.230 |
| 5493.474 | 7000.646 | 82.400 | 1.010 |
| 7554.500 | 5889.900 | 68.575 | 0.070 |
| 7544.445 | 5890.141 | 70.650 | 0.337 |
| 7534.389 | 5890.382 | 69.550 | 0.160 |
| 7524.334 | 5890.624 | 71.825 | 0.455 |
| 7514.279 | 5890.865 | 75.525 | 0.230 |
| 7504.224 | 5891.106 | 77.500 | 0.130 |
| 7494.168 | 5891.348 | 80.325 | 0.350 |
| 7484.112 | 5891.589 | 83.325 | 0.202 |
| 7474.057 | 5891.830 | 86.000 | 0.547 |
| 7464.002 | 5892.072 | 89.900 | 0.700 |
| 7453.946 | 5892.313 | 88.525 | 0.630 |
| 7443.891 | 5892.554 | 90.400 | 0.647 |
| 7433.836 | 5892.795 | 93.150 | 0.620 |
| 7423.781 | 5893.037 | 88.350 | 0.530 |
| 7413.725 | 5893.278 | 82.400 | 0.520 |
| 7403.670 | 5893.520 | 88.800 | 0.650 |
| 7393.615 | 5893.761 | 86.275 | 0.560 |
| 7383.560 | 5894.002 | 85.100 | 0.580 |
| 7373.504 | 5894.243 | 88.600 | 0.690 |
| 7363.449 | 5894.484 | 91.000 | 0.900 |
| 7353.394 | 5894.726 | 90.425 | 0.772 |
| 7343.338 | 5894.967 | 92.125 | 1.170 |
| 7333.282 | 5895.208 | 94.900 | 0.840 |
| 7323.227 | 5895.450 | 93.600 | 0.845 |
| 7313.172 | 5895.691 | 93.050 | 0.720 |
| 7303.116 | 5895.932 | 88.500 | 0.705 |
| 7293.061 | 5896.174 | 84.200 | 0.480 |
| 7283.006 | 5896.415 | 82.075 | 0.380 |
| 7272.951 | 5896.656 | 78.900 | 0.420 |
| 7262.895 | 5896.897 | 79.000 | 0.310 |
| 7252.840 | 5897.139 | 80.200 | 0.320 |
| 7242.785 | 5897.380 | 79.350 | 0.310 |
| 7232.729 | 5897.622 | 77.900 | 0.200 |
| 7222.674 | 5897.863 | 77.100 | 0.270 |
| 7212.619 | 5898.104 | 77.700 | 0.282 |
| 7202.563 | 5898.345 | 75.475 | 0.385 |

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|---|---|---|---|
| 7192.508 | 5898.586 | 73.500 | 0.070 |
| 7182.452 | 5898.828 | 74.800 | 0.120 |
| 7172.397 | 5899.069 | 75.875 | 0.142 |
| 7162.342 | 5899.311 | 76.200 | 0.260 |
| 7152.287 | 5899.552 | 78.100 | 0.292 |
| 7142.231 | 5899.793 | 82.450 | 0.580 |
| 7132.176 | 5900.034 | 78.400 | 0.982 |
| 7122.121 | 5900.276 | 87.000 | 0.760 |
| 7112.065 | 5900.517 | 89.000 | 0.750 |
| 7102.010 | 5900.758 | 93.525 | 0.787 |
| 7091.955 | 5901.000 | 91.900 | 0.730 |
| 7081.899 | 5901.241 | 88.800 | 0.980 |
| 7071.844 | 5901.482 | 95.400 | 1.190 |
| 7061.788 | 5901.724 | 93.100 | 1.210 |
| 7051.733 | 5901.965 | 87.500 | 1.180 |
| 7041.678 | 5902.206 | 99.500 | 1.890 |
| 7031.622 | 5902.447 | 100.025 | 3.070 |
| 7021.567 | 5902.688 | 114.425 | 4.882 |
| 7011.512 | 5902.930 | 45.400 | -8.206 |
| 7001.457 | 5903.171 | 141.825 | 10.842 |
| 6991.401 | 5903.413 | 104.300 | 4.205 |
| 6981.346 | 5903.654 | 93.800 | 3.050 |
| 6971.291 | 5903.895 | 102.400 | 3.740 |
| 6961.235 | 5904.136 | 127.950 | 7.307 |
| 6951.180 | 5904.378 | 19.900 | -7.222 |
| 6941.125 | 5904.619 | 55.425 | -3.732 |
| 6931.069 | 5904.860 | 133.200 | 9.277 |
| 6921.014 | 5905.102 | 173.100 | 9.597 |
| 6910.958 | 5905.343 | 204.775 | 14.920 |
| 6900.903 | 5905.584 | 93.250 | 11.870 |
| 6890.848 | 5905.826 | 204.775 | 20.355 |
| 6880.792 | 5906.067 | 174.775 | 8.120 |
| 6870.737 | 5906.308 | 176.625 | 8.402 |
| 6860.682 | 5906.549 | 161.225 | 20.477 |
| 6850.626 | 5906.791 | 204.775 | 20.477 |
| 6840.571 | 5907.032 | 204.775 | 20.477 |
| 6830.516 | 5907.273 | 204.775 | 11.865 |
| 6820.460 | 5907.515 | 166.475 | 0.017 |
| 6810.405 | 5907.756 | 140.700 | 5.762 |
| 6800.350 | 5907.997 | 183.775 | 9.795 |
| 6790.294 | 5908.238 | 115.925 | 12.230 |
| 6780.239 | 5908.479 | 171.050 | 13.827 |
| 6770.184 | 5908.721 | 204.775 | 17.130 |
| 6760.128 | 5908.962 | 204.775 | 13.937 |
| 6750.073 | 5909.204 | 201.600 | 11.190 |
| 6740.018 | 5909.445 | 204.775 | 10.710 |
| 6729.962 | 5909.686 | 160.700 | 8.305 |
| 6719.907 | 5909.928 | 142.600 | 6.372 |
| 6709.852 | 5910.169 | 126.275 | 5.870 |
| 6699.796 | 5910.410 | 113.700 | 5.452 |

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|---|---|---|---|
| 6689.741 | 5910.651 | 116.025 | 4.305 |
| 6679.686 | 5910.893 | 119.400 | 4.315 |
| 6669.630 | 5911.134 | 148.775 | 5.240 |
| 6659.575 | 5911.375 | 158.300 | 6.170 |
| 6649.520 | 5911.617 | 166.675 | 6.530 |
| 6639.464 | 5911.858 | 203.500 | 7.142 |
| 6629.409 | 5912.099 | 186.250 | 7.020 |
| 6619.354 | 5912.340 | 174.450 | 6.910 |
| 6609.298 | 5912.582 | 198.725 | 8.542 |
| 6599.243 | 5912.823 | 192.850 | 7.927 |
| 6589.188 | 5913.064 | 184.475 | 7.260 |
| 6579.132 | 5913.306 | 190.800 | 8.215 |
| 6569.077 | 5913.547 | 165.300 | 7.240 |
| 6559.021 | 5913.788 | 145.700 | 5.950 |
| 6548.966 | 5914.029 | 147.000 | 5.155 |
| 6538.911 | 5914.271 | 121.075 | 4.240 |
| 6528.855 | 5914.512 | 142.700 | 4.850 |
| 6518.800 | 5914.753 | 130.700 | 5.030 |
| 6508.745 | 5914.995 | 133.200 | 6.047 |
| 6498.689 | 5915.236 | 114.350 | 7.262 |
| 6488.634 | 5915.478 | 183.475 | 4.242 |
| 6478.579 | 5915.719 | 170.875 | 5.757 |
| 6468.523 | 5915.960 | 196.100 | 8.500 |
| 6458.468 | 5916.201 | 204.775 | 9.740 |
| 6448.413 | 5916.442 | 204.775 | 9.035 |
| 6438.357 | 5916.684 | 159.925 | 8.685 |
| 6428.302 | 5916.925 | 204.775 | 11.600 |
| 6418.247 | 5917.167 | 204.775 | 12.862 |
| 6408.191 | 5917.408 | 204.775 | 18.020 |
| 6398.136 | 5917.649 | 204.775 | 20.477 |
| 6388.081 | 5917.890 | 198.875 | -8.347 |
| 6378.025 | 5918.131 | 204.775 | 9.152 |
| 6367.970 | 5918.373 | 204.775 | 20.477 |
| 6357.915 | 5918.614 | 231.250 | 20.477 |
| 6347.859 | 5918.855 | 262.250 | 20.477 |
| 6337.804 | 5919.097 | 226.000 | 20.477 |
| 6327.749 | 5919.338 | 266.000 | 20.477 |
| 6317.693 | 5919.580 | 295.000 | 14.002 |
| 6307.638 | 5919.821 | 234.000 | 20.477 |
| 6297.583 | 5920.062 | 336.750 | 20.477 |
| 6287.527 | 5920.303 | 545.250 | 20.477 |
| 6277.472 | 5920.544 | 339.000 | 20.477 |
| 6267.417 | 5920.786 | 448.000 | 20.477 |
| 6257.361 | 5921.027 | 340.750 | 20.477 |
| 6247.306 | 5921.269 | 361.500 | 20.477 |
| 6237.251 | 5921.510 | 668.250 | 20.477 |
| 6227.195 | 5921.751 | 541.250 | 20.477 |
| 6217.140 | 5921.992 | 383.250 | 20.477 |
| 6207.084 | 5922.233 | 454.250 | 20.477 |
| 6197.029 | 5922.475 | 960.750 | 20.477 |

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|---|---|---|---|
| 6186.974 | 5922.716 | 419.500 | 20.477 |
| 6176.918 | 5922.958 | 434.500 | 20.477 |
| 6166.863 | 5923.199 | 633.000 | 20.477 |
| 6156.808 | 5923.440 | 546.250 | 20.477 |
| 6146.752 | 5923.682 | 665.000 | 20.477 |
| 6136.697 | 5923.923 | 599.250 | 20.477 |
| 6126.642 | 5924.164 | 527.000 | 20.477 |
| 6116.587 | 5924.405 | 704.000 | 20.477 |
| 6106.531 | 5924.646 | 541.250 | 20.477 |
| 6096.476 | 5924.888 | 611.000 | 20.477 |
| 6086.420 | 5925.129 | 652.250 | 20.477 |
| 6076.365 | 5925.371 | 534.250 | 20.477 |
| 6066.310 | 5925.612 | 503.500 | 20.477 |
| 6056.254 | 5925.853 | 355.250 | 20.477 |
| 6046.199 | 5926.094 | 349.250 | 20.477 |
| 6036.144 | 5926.335 | 294.000 | 19.252 |
| 6026.088 | 5926.577 | 245.000 | 13.665 |
| 6016.033 | 5926.818 | 264.000 | 17.927 |
| 6005.978 | 5927.060 | 328.250 | 20.477 |
| 5995.922 | 5927.301 | 342.000 | 20.477 |
| 5985.867 | 5927.542 | 182.000 | 9.202 |
| 5975.812 | 5927.783 | 240.250 | 13.585 |
| 5965.757 | 5928.025 | 235.250 | 13.872 |
| 5955.701 | 5928.266 | 265.250 | 15.880 |
| 5945.646 | 5928.507 | 281.000 | 17.500 |
| 5935.590 | 5928.749 | 274.250 | 18.150 |
| 5925.535 | 5928.990 | 327.000 | 20.477 |
| 5915.479 | 5929.231 | 349.000 | 20.477 |
| 5905.424 | 5929.473 | 385.000 | 20.477 |
| 5895.369 | 5929.714 | 344.250 | 20.477 |
| 5885.314 | 5929.955 | 362.750 | 20.477 |
| 5875.258 | 5930.196 | 355.000 | 20.477 |
| 5865.203 | 5930.438 | 341.000 | 20.477 |
| 5855.148 | 5930.679 | 317.250 | 20.477 |
| 5845.093 | 5930.920 | 314.250 | 20.477 |
| 5835.037 | 5931.162 | 349.250 | 20.477 |
| 5824.982 | 5931.403 | 288.750 | 20.477 |
| 5814.927 | 5931.644 | 330.000 | 20.477 |
| 5804.871 | 5931.885 | 310.750 | 20.177 |
| 5794.815 | 5932.127 | 260.250 | 14.775 |
| 5784.760 | 5932.368 | 245.000 | 12.905 |
| 5774.705 | 5932.609 | 217.000 | 10.867 |
| 5764.649 | 5932.851 | 206.250 | 9.880 |
| 5754.594 | 5933.092 | 195.000 | 9.217 |
| 5744.539 | 5933.333 | 204.000 | 10.100 |
| 5734.484 | 5933.575 | 190.000 | 10.265 |
| 5724.428 | 5933.816 | 214.000 | 10.530 |
| 5714.373 | 5934.057 | 235.250 | 10.410 |
| 5704.318 | 5934.298 | 212.250 | 9.240 |
| 5694.263 | 5934.540 | 222.750 | 10.000 |

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| 5684.207 | 5934.781 | 241.250 | 10.890 |
| 5674.152 | 5935.022 | 253.000 | 11.687 |
| 5664.096 | 5935.264 | 222.250 | 10.362 |
| 5654.041 | 5935.505 | 225.000 | 9.650 |
| 5643.985 | 5935.746 | 211.000 | 9.042 |
| 5633.930 | 5935.987 | 210.000 | 8.860 |
| 5623.875 | 5936.229 | 222.000 | 9.110 |
| 5613.819 | 5936.470 | 214.000 | 8.450 |
| 5603.764 | 5936.711 | 235.000 | 8.710 |
| 5593.709 | 5936.953 | 246.000 | 9.170 |
| 5583.654 | 5937.194 | 241.000 | 9.337 |
| 5573.598 | 5937.435 | 181.000 | 6.610 |
| 5563.543 | 5937.677 | 239.500 | 8.260 |
| 5553.488 | 5937.918 | 204.000 | 7.422 |
| 5543.433 | 5938.159 | 182.000 | 6.077 |
| 5533.377 | 5938.400 | 199.000 | 6.892 |
| 5523.321 | 5938.642 | 168.000 | 6.040 |
| 5513.266 | 5938.883 | 202.000 | 6.430 |
| 5503.211 | 5939.125 | 185.000 | 5.880 |
| 5493.155 | 5939.366 | 178.000 | 5.740 |
| 5483.100 | 5939.607 | 184.000 | 5.410 |
| 5473.045 | 5939.848 | 173.000 | 5.530 |
| 5462.990 | 5940.089 | 178.000 | 5.220 |
| 5452.934 | 5940.331 | 180.000 | 4.970 |
| 5442.879 | 5940.572 | 178.000 | 4.680 |
| 5432.824 | 5940.813 | 176.000 | 5.090 |
| 5422.769 | 5941.055 | 190.750 | 6.280 |
| 5412.713 | 5941.296 | 207.000 | 7.130 |
| 5402.658 | 5941.537 | 222.000 | 7.882 |
| 5392.602 | 5941.779 | 215.000 | 8.180 |
| 5382.546 | 5942.020 | 250.000 | 10.547 |
| 5372.491 | 5942.261 | 255.250 | 10.610 |
| 5362.436 | 5942.502 | 230.000 | 9.455 |
| 5352.381 | 5942.744 | 228.000 | 9.457 |
| 5342.325 | 5942.985 | 216.000 | 9.182 |
| 5332.270 | 5943.227 | 221.000 | 9.550 |
| 5322.215 | 5943.468 | 224.000 | 9.977 |
| 5312.160 | 5943.709 | 226.000 | 10.090 |
| 5302.104 | 5943.950 | 214.000 | 8.827 |
| 5292.049 | 5944.191 | 219.250 | 8.535 |
| 5281.994 | 5944.433 | 182.500 | 7.870 |
| 5271.938 | 5944.674 | 197.000 | 7.960 |
| 5261.883 | 5944.916 | 185.000 | 7.430 |
| 5251.827 | 5945.157 | 186.000 | 7.300 |
| 5241.772 | 5945.398 | 182.000 | 6.950 |
| 5231.717 | 5945.639 | 186.000 | 7.040 |
| 5221.661 | 5945.881 | 191.000 | 6.810 |
| 5211.606 | 5946.122 | 175.250 | 5.800 |
| 5201.551 | 5946.363 | 169.250 | 5.152 |
| 5191.495 | 5946.604 | 160.000 | 4.560 |

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|---|---|---|---|
| 5181.440 | 5946.846 | 158.000 | 4.240 |
| 5171.385 | 5947.087 | 157.000 | 4.110 |
| 5161.330 | 5947.329 | 151.000 | 3.620 |
| 5151.274 | 5947.570 | 151.000 | 4.500 |
| 5141.219 | 5947.811 | 162.500 | 4.610 |
| 5131.164 | 5948.052 | 169.000 | 4.300 |
| 5121.108 | 5948.293 | 156.000 | 5.695 |
| 5111.052 | 5948.535 | 165.000 | 3.310 |
| 5100.997 | 5948.776 | 153.000 | 4.140 |
| 5090.942 | 5949.018 | 170.000 | 5.020 |
| 5080.887 | 5949.259 | 163.000 | 4.940 |
| 5070.831 | 5949.500 | 159.000 | 4.610 |
| 5060.776 | 5949.741 | 140.000 | 3.190 |
| 5050.721 | 5949.983 | 112.000 | 1.760 |
| 5100.000 | 5800.000 | 124.000 | 2.500 |
| 5103.587 | 5793.851 | 130.000 | 1.892 |
| 5107.174 | 5787.701 | 129.250 | 2.235 |
| 5110.761 | 5781.552 | 139.000 | 2.700 |
| 5114.348 | 5775.403 | 136.000 | 2.740 |
| 5117.936 | 5769.253 | 130.000 | 3.115 |
| 5121.522 | 5763.104 | 121.000 | 2.622 |
| 5125.110 | 5756.955 | 116.750 | 2.477 |
| 5128.697 | 5750.806 | 111.000 | 1.880 |
| 5132.284 | 5744.657 | 113.000 | 2.070 |
| 5135.871 | 5738.507 | 116.000 | 1.912 |
| 5139.458 | 5732.358 | 115.500 | 1.860 |
| 5143.045 | 5726.208 | 103.250 | 1.950 |
| 5146.632 | 5720.059 | 99.000 | 1.670 |
| 5150.219 | 5713.910 | 98.000 | 1.800 |
| 5153.806 | 5707.761 | 91.500 | 1.392 |
| 5157.394 | 5701.611 | 80.000 | 0.950 |
| 5160.980 | 5695.462 | 80.000 | 0.960 |
| 5164.567 | 5689.313 | 76.250 | 0.910 |
| 5168.154 | 5683.164 | 74.000 | 1.165 |
| 5171.742 | 5677.015 | 77.000 | 1.210 |
| 5175.329 | 5670.865 | 82.000 | 1.140 |
| 5178.916 | 5664.716 | 79.000 | 0.940 |
| 5182.503 | 5658.566 | 84.000 | 0.790 |
| 5186.090 | 5652.417 | 84.000 | 0.427 |
| 5189.677 | 5646.268 | 77.750 | 0.550 |
| 5193.264 | 5640.119 | 72.000 | 0.105 |
| 5196.851 | 5633.969 | 69.000 | 0.160 |
| 5200.438 | 5627.820 | 96.000 | 0.610 |
| 5204.025 | 5621.671 | 77.000 | 0.090 |
| 5207.612 | 5615.521 | 70.000 | 0.140 |
| 5211.200 | 5609.372 | 70.000 | 0.002 |
| 5214.787 | 5603.223 | 63.000 | 0.052 |
| 5218.374 | 5597.074 | 69.000 | 0.220 |
| 5221.961 | 5590.924 | 67.250 | 0.082 |
| 5225.548 | 5584.775 | 68.000 | 0.145 |

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|---|---|---|---|
| 5229.135 | 5578.626 | 76.000 | 0.350 |
| 5232.722 | 5572.477 | 80.250 | 0.877 |
| 5236.309 | 5566.327 | 76.000 | 0.330 |
| 5239.896 | 5560.178 | 84.000 | 0.140 |
| 5243.483 | 5554.029 | 84.000 | 0.582 |
| 5247.070 | 5547.879 | 86.000 | 0.755 |
| 5250.657 | 5541.730 | 88.000 | 0.640 |
| 5275.000 | 5500.000 | 87.000 | 0.382 |
| 5285.553 | 5500.000 | 89.000 | 0.640 |
| 5296.106 | 5500.000 | 92.000 | 1.075 |
| 5306.660 | 5500.000 | 92.000 | 0.950 |
| 5317.213 | 5500.000 | 102.000 | 1.320 |
| 5327.766 | 5500.000 | 108.000 | 1.700 |
| 5338.319 | 5500.000 | 108.000 | 2.140 |
| 5348.873 | 5500.000 | 120.000 | 2.440 |
| 5359.425 | 5500.000 | 124.000 | 2.290 |
| 5369.979 | 5500.000 | 128.500 | 2.565 |
| 5380.532 | 5500.000 | 132.000 | 2.640 |
| 5391.085 | 5500.000 | 132.000 | 2.710 |
| 5401.638 | 5500.000 | 134.000 | 2.740 |
| 5412.191 | 5500.000 | 116.750 | 2.500 |
| 5422.745 | 5500.000 | 115.000 | 1.985 |
| 5433.298 | 5500.000 | 115.500 | 0.790 |
| 5443.851 | 5500.000 | 115.500 | 1.190 |
| 5454.404 | 5500.000 | 96.000 | 1.120 |
| 5464.958 | 5500.000 | 117.000 | 1.740 |
| 5475.511 | 5500.000 | 117.000 | 1.760 |
| 5486.064 | 5500.000 | 113.000 | 1.750 |
| 5496.617 | 5500.000 | 114.000 | 2.290 |
| 5507.170 | 5500.000 | 117.000 | 2.120 |
| 5517.724 | 5500.000 | 114.000 | 1.660 |
| 5528.276 | 5500.000 | 112.000 | 1.570 |
| 5538.830 | 5500.000 | 112.000 | 1.612 |
| 5549.383 | 5500.000 | 105.000 | 1.600 |
| 5559.936 | 5500.000 | 106.000 | 1.580 |
| 5570.489 | 5500.000 | 107.000 | 1.610 |
| 5581.042 | 5500.000 | 105.000 | 1.560 |
| 5591.596 | 5500.000 | 103.000 | 1.702 |
| 5602.149 | 5500.000 | 100.500 | 1.352 |
| 5612.702 | 5500.000 | 100.000 | 1.620 |
| 5623.255 | 5500.000 | 102.000 | 1.607 |
| 5633.809 | 5500.000 | 105.000 | 1.497 |
| 5644.362 | 5500.000 | 104.000 | 1.530 |
| 5654.915 | 5500.000 | 104.500 | 1.280 |
| 5665.468 | 5500.000 | 105.000 | 1.370 |
| 5676.021 | 5500.000 | 108.000 | 1.637 |
| 5686.574 | 5500.000 | 109.000 | 1.760 |
| 5697.127 | 5500.000 | 115.000 | 1.902 |
| 5707.681 | 5500.000 | 116.000 | 2.102 |
| 5718.234 | 5500.000 | 119.000 | 1.930 |

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|---|---|---|---|
| 5728.787 | 5500.000 | 109.000 | 1.890 |
| 5739.340 | 5500.000 | 126.000 | 2.635 |
| 5749.894 | 5500.000 | 123.000 | 2.480 |
| 5760.447 | 5500.000 | 116.000 | 2.040 |
| 5771.000 | 5500.000 | 111.000 | 1.920 |
| 5781.553 | 5500.000 | 122.250 | 2.520 |
| 5792.106 | 5500.000 | 116.000 | 2.880 |
| 5802.660 | 5500.000 | 117.000 | 2.760 |
| 5813.213 | 5500.000 | 118.000 | 3.790 |
| 5823.766 | 5500.000 | 116.000 | 3.520 |
| 5834.319 | 5500.000 | 112.000 | 3.810 |
| 5844.873 | 5500.000 | 111.000 | 3.892 |
| 5855.425 | 5500.000 | 113.250 | 3.740 |
| 5865.979 | 5500.000 | 112.000 | 2.660 |
| 5876.532 | 5500.000 | 112.000 | 2.090 |
| 5887.085 | 5500.000 | 107.000 | 2.110 |
| 5897.638 | 5500.000 | 108.000 | 1.990 |
| 5908.191 | 5500.000 | 104.000 | 1.660 |
| 5918.745 | 5500.000 | 106.000 | 1.810 |
| 5929.298 | 5500.000 | 114.000 | 1.920 |
| 5939.851 | 5500.000 | 119.000 | 2.307 |
| 5950.404 | 5500.000 | 60.500 | 1.130 |
| 5960.958 | 5500.000 | 109.000 | 1.825 |
| 5971.511 | 5500.000 | 94.000 | 1.640 |
| 5982.064 | 5500.000 | 95.000 | 1.760 |
| 5992.617 | 5500.000 | 67.000 | 1.802 |
| 6003.170 | 5500.000 | 87.750 | 1.380 |
| 6013.723 | 5500.000 | 82.000 | 0.670 |
| 6024.276 | 5500.000 | 79.000 | 1.300 |
| 6034.830 | 5500.000 | 77.000 | 1.400 |
| 6045.383 | 5500.000 | 84.000 | 0.852 |
| 6055.936 | 5500.000 | 77.000 | 0.810 |
| 6066.489 | 5500.000 | 87.000 | 0.860 |
| 6077.042 | 5500.000 | 83.000 | 1.192 |
| 6087.596 | 5500.000 | 81.000 | 1.560 |
| 6098.149 | 5500.000 | 82.000 | 1.340 |
| 6108.702 | 5500.000 | 84.000 | 1.080 |
| 6119.255 | 5500.000 | 84.000 | 1.247 |
| 6129.809 | 5500.000 | 87.000 | 1.750 |
| 6140.362 | 5500.000 | 95.250 | 2.280 |
| 6150.915 | 5500.000 | 103.000 | 2.410 |
| 6161.468 | 5500.000 | 123.000 | 2.940 |
| 6172.021 | 5500.000 | 126.000 | 4.130 |
| 6182.574 | 5500.000 | 164.000 | 5.550 |
| 6193.127 | 5500.000 | 180.750 | 6.350 |
| 6203.681 | 5500.000 | 206.000 | 8.422 |
| 6214.234 | 5500.000 | 226.250 | 9.637 |
| 6224.787 | 5500.000 | 181.000 | 9.210 |
| 6235.340 | 5500.000 | 231.500 | 10.950 |
| 6245.894 | 5500.000 | 172.000 | 11.067 |

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|---|---|---|---|
| 6256.447 | 5500.000 | 250.000 | 15.057 |
| 6267.000 | 5500.000 | 255.750 | 16.627 |
| 6277.553 | 5500.000 | 269.250 | 14.897 |
| 6288.106 | 5500.000 | 130.000 | 4.600 |
| 6298.660 | 5500.000 | 246.000 | 14.987 |
| 6309.213 | 5500.000 | 215.000 | 13.500 |
| 6319.766 | 5500.000 | 243.250 | 14.335 |
| 6330.319 | 5500.000 | 179.250 | 13.610 |
| 6340.872 | 5500.000 | 425.500 | 20.477 |
| 6351.425 | 5500.000 | 524.250 | 20.477 |
| 6361.979 | 5500.000 | 394.250 | 20.477 |
| 6372.532 | 5500.000 | 272.750 | 17.120 |
| 6383.085 | 5500.000 | 233.750 | 14.690 |
| 6393.638 | 5500.000 | 214.000 | 12.730 |
| 6404.191 | 5500.000 | 228.000 | 11.862 |
| 6414.745 | 5500.000 | 163.750 | 10.292 |
| 6425.298 | 5500.000 | 276.500 | 18.645 |
| 6435.851 | 5500.000 | 340.000 | 20.477 |
| 6446.404 | 5500.000 | 283.250 | 20.477 |
| 6456.958 | 5500.000 | 158.000 | -10.625 |
| 6467.511 | 5500.000 | 211.000 | 20.477 |
| 6478.064 | 5500.000 | 173.250 | 19.307 |
| 6488.617 | 5500.000 | 133.000 | 8.630 |
| 6499.170 | 5500.000 | 113.000 | 4.390 |
| 6509.723 | 5500.000 | 106.000 | 2.800 |
| 6520.276 | 5500.000 | 92.000 | 2.275 |
| 6530.830 | 5500.000 | 95.000 | 1.940 |
| 6541.383 | 5500.000 | 83.000 | 1.650 |
| 6551.936 | 5500.000 | 89.000 | 2.322 |
| 6562.489 | 5500.000 | 50.000 | -20.470 |
| 6573.042 | 5500.000 | -23.000 | -20.470 |
| 6583.596 | 5500.000 | -4.000 | -20.470 |
| 6594.149 | 5500.000 | 90.000 | -20.470 |
| 6604.702 | 5500.000 | 109.750 | 20.477 |
| 6615.255 | 5500.000 | 91.000 | -2.532 |
| 6625.809 | 5500.000 | 99.000 | 4.835 |
| 6636.362 | 5500.000 | 57.000 | 1.017 |
| 6646.915 | 5500.000 | 96.000 | 3.560 |
| 6657.468 | 5500.000 | 87.750 | 3.410 |
| 6668.021 | 5500.000 | 91.000 | 3.120 |
| 6678.574 | 5500.000 | 90.250 | 3.380 |
| 6689.127 | 5500.000 | 75.000 | -20.465 |
| 6699.681 | 5500.000 | 84.000 | -4.955 |
| 6710.234 | 5500.000 | 114.000 | 11.400 |
| 6720.787 | 5500.000 | 158.250 | 17.230 |
| 6731.340 | 5500.000 | 228.250 | 20.477 |
| 6741.894 | 5500.000 | 249.000 | 20.477 |
| 6752.447 | 5500.000 | 137.000 | 14.132 |
| 6763.000 | 5500.000 | 92.250 | 8.545 |
| 6773.553 | 5500.000 | 304.250 | 20.477 |

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|---|---|---|---|
| 6784.106 | 5500.000 | 306.250 | 20.477 |
| 6794.660 | 5500.000 | 204.250 | 20.477 |
| 6805.213 | 5500.000 | 147.500 | 14.982 |
| 6815.766 | 5500.000 | 201.250 | 20.477 |
| 6826.319 | 5500.000 | 266.250 | 20.477 |
| 6836.872 | 5500.000 | 178.750 | 20.477 |
| 6847.425 | 5500.000 | 155.250 | 20.477 |
| 6857.979 | 5500.000 | 243.250 | 20.477 |
| 6868.532 | 5500.000 | 231.250 | 20.477 |
| 6879.085 | 5500.000 | 101.750 | 1.650 |
| 6889.638 | 5500.000 | 197.500 | 20.477 |
| 6900.191 | 5500.000 | 149.250 | 20.477 |
| 6910.745 | 5500.000 | 139.000 | 20.477 |
| 6921.298 | 5500.000 | 162.250 | 20.477 |
| 6931.851 | 5500.000 | 154.000 | 16.462 |
| 6942.404 | 5500.000 | 139.250 | 12.250 |
| 6952.958 | 5500.000 | 132.000 | 9.267 |
| 6963.511 | 5500.000 | 114.000 | 6.095 |
| 6974.064 | 5500.000 | 105.750 | 4.700 |
| 6984.617 | 5500.000 | 99.000 | 4.390 |
| 6995.170 | 5500.000 | 97.750 | 4.710 |
| 7005.723 | 5500.000 | 104.250 | 5.745 |
| 7016.276 | 5500.000 | 120.000 | 6.720 |
| 7026.830 | 5500.000 | 127.000 | 6.120 |
| 7037.383 | 5500.000 | 61.000 | -1.867 |
| 7047.936 | 5500.000 | 125.000 | 9.777 |
| 7058.489 | 5500.000 | 162.250 | 13.280 |
| 7069.042 | 5500.000 | 140.000 | 14.975 |
| 7079.596 | 5500.000 | 129.250 | 12.980 |
| 7090.149 | 5500.000 | 142.000 | 15.340 |
| 7100.702 | 5500.000 | 131.000 | 9.547 |
| 7111.255 | 5500.000 | 100.000 | 5.167 |
| 7121.809 | 5500.000 | 95.000 | 4.560 |
| 7132.362 | 5500.000 | 97.000 | 5.030 |
| 7142.915 | 5500.000 | 91.000 | 4.202 |
| 7153.468 | 5500.000 | 83.000 | 4.335 |
| 7164.021 | 5500.000 | 126.500 | 19.662 |
| 7174.574 | 5500.000 | 67.000 | 1.785 |
| 7185.127 | 5500.000 | 39.000 | -7.900 |
| 7195.681 | 5500.000 | 120.000 | 16.115 |
| 7206.234 | 5500.000 | 227.000 | 16.020 |
| 7216.787 | 5500.000 | 84.000 | 10.247 |
| 7227.340 | 5500.000 | 65.000 | 7.820 |
| 7237.894 | 5500.000 | 206.250 | 8.910 |
| 7248.447 | 5500.000 | 79.000 | 0.270 |
| 7259.000 | 5500.000 | 121.000 | 2.127 |
| 7269.553 | 5500.000 | 50.000 | -1.502 |
| 7280.106 | 5500.000 | 99.000 | 8.025 |
| 7290.660 | 5500.000 | 110.000 | 5.330 |
| 7301.213 | 5500.000 | 82.000 | 6.690 |

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|---|---|---|---|
| 7311.766 | 5500.000 | 82.500 | 2.272 |
| 7322.319 | 5500.000 | 45.000 | -2.150 |
| 7332.872 | 5500.000 | 114.250 | 11.160 |
| 7343.425 | 5500.000 | 73.000 | 5.397 |
| 7353.979 | 5500.000 | 67.000 | 3.615 |
| 7364.532 | 5500.000 | 72.000 | 3.000 |
| 7375.085 | 5500.000 | 77.000 | 2.790 |
| 7385.638 | 5500.000 | 78.000 | 2.685 |
| 7396.191 | 5500.000 | 76.000 | 2.280 |
| 7406.745 | 5500.000 | 76.000 | 2.067 |
| 7417.298 | 5500.000 | 76.000 | 2.155 |
| 7427.851 | 5500.000 | 69.000 | 2.020 |
| 7438.404 | 5500.000 | 76.000 | 2.210 |
| 7448.958 | 5500.000 | 69.000 | 1.697 |
| 7459.511 | 5500.000 | 75.000 | 1.800 |
| 7470.064 | 5500.000 | 75.750 | 1.750 |
| 7480.617 | 5500.000 | 64.000 | 1.800 |
| 7491.170 | 5500.000 | 65.000 | 1.660 |
| 7501.723 | 5500.000 | 62.000 | 1.472 |
| 7512.276 | 5500.000 | 61.000 | 1.420 |
| 7522.830 | 5500.000 | 59.000 | 1.290 |
| 7533.383 | 5500.000 | 60.000 | 1.430 |
| 7543.936 | 5500.000 | 61.000 | 1.602 |
| 7554.489 | 5500.000 | 59.000 | 1.680 |
| 7565.042 | 5500.000 | 62.000 | 2.022 |
| 7575.596 | 5500.000 | 63.000 | 2.662 |
| 7586.149 | 5500.000 | 59.000 | 3.440 |
| 7596.702 | 5500.000 | 67.000 | 3.712 |
| 7607.255 | 5500.000 | 73.000 | 5.105 |
| 7617.809 | 5500.000 | 86.000 | 7.300 |
| 7628.362 | 5500.000 | 128.000 | 13.697 |
| 7638.915 | 5500.000 | 60.250 | 0.065 |
| 7649.468 | 5500.000 | 216.000 | 15.305 |
| 7660.021 | 5500.000 | 266.250 | 20.477 |
| 7670.574 | 5500.000 | 116.500 | 4.840 |
| 7681.127 | 5500.000 | 121.000 | 3.830 |
| 7691.681 | 5500.000 | 51.000 | -1.250 |
| 7702.234 | 5500.000 | 22.000 | -3.220 |
| 7712.787 | 5500.000 | 68.000 | 2.160 |
| 7723.340 | 5500.000 | 69.000 | 1.470 |
| 7733.894 | 5500.000 | 57.000 | 1.052 |
| 7744.447 | 5500.000 | 74.000 | 1.430 |
| 7755.000 | 5500.000 | 66.500 | 1.160 |
| 7640.000 | 5000.000 | 37.000 | -19.947 |
| 7631.200 | 5000.000 | 31.000 | -5.500 |
| 7622.400 | 5000.000 | 42.000 | -11.937 |
| 7613.600 | 5000.000 | 48.000 | 0.202 |
| 7604.800 | 5000.000 | 42.000 | -1.172 |
| 7596.000 | 5000.000 | 43.000 | -1.147 |
| 7587.200 | 5000.000 | 42.000 | -0.900 |

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|---|---|---|---|
| 7578.400 | 5000.000 | 44.000 | -0.786 |
| 7569.600 | 5000.000 | 46.000 | 0.055 |
| 7560.800 | 5000.000 | 45.000 | 2.360 |
| 7552.000 | 5000.000 | 45.250 | 0.267 |
| 7543.200 | 5000.000 | 48.000 | -0.572 |
| 7534.400 | 5000.000 | 48.000 | -0.846 |
| 7525.600 | 5000.000 | 49.000 | -0.900 |
| 7516.800 | 5000.000 | 50.000 | -0.730 |
| 7508.000 | 5000.000 | 55.000 | -0.840 |
| 7499.200 | 5000.000 | 58.000 | -0.860 |
| 7490.400 | 5000.000 | 57.000 | -0.900 |
| 7481.600 | 5000.000 | 60.000 | -0.720 |
| 7472.800 | 5000.000 | 63.000 | -0.930 |
| 7464.000 | 5000.000 | 62.000 | -0.580 |
| 7455.200 | 5000.000 | 64.750 | -0.275 |
| 7446.400 | 5000.000 | 71.250 | 0.145 |
| 7437.600 | 5000.000 | 61.500 | 0.807 |
| 7428.800 | 5000.000 | 71.250 | 1.420 |
| 7420.000 | 5000.000 | 67.000 | 2.500 |
| 7411.200 | 5000.000 | 69.000 | 2.750 |
| 7402.400 | 5000.000 | 66.000 | 2.490 |
| 7393.600 | 5000.000 | 71.000 | 2.650 |
| 7384.800 | 5000.000 | 69.000 | 3.220 |
| 7376.000 | 5000.000 | 74.500 | 4.170 |
| 7367.200 | 5000.000 | 75.000 | 4.890 |
| 7358.400 | 5000.000 | 83.000 | 6.207 |
| 7349.600 | 5000.000 | 100.000 | 9.145 |
| 7340.800 | 5000.000 | 113.000 | 12.860 |
| 7332.000 | 5000.000 | 123.250 | 18.902 |
| 7323.200 | 5000.000 | 144.000 | 10.285 |
| 7314.400 | 5000.000 | 54.000 | -3.817 |
| 7305.600 | 5000.000 | 232.250 | 20.477 |
| 7296.800 | 5000.000 | 228.250 | 20.477 |
| 7288.000 | 5000.000 | 170.000 | 14.980 |
| 7279.200 | 5000.000 | 318.250 | 20.477 |
| 7270.400 | 5000.000 | 166.750 | 20.477 |
| 7261.600 | 5000.000 | 184.000 | 10.330 |
| 7252.800 | 5000.000 | 222.250 | 16.395 |
| 7244.000 | 5000.000 | 157.250 | 6.455 |
| 7235.200 | 5000.000 | 184.250 | 20.477 |
| 7226.400 | 5000.000 | 212.000 | 20.037 |
| 7217.600 | 5000.000 | 239.000 | 8.615 |
| 7208.800 | 5000.000 | 225.000 | 9.775 |
| 7200.000 | 5000.000 | 212.000 | 13.042 |
| 7191.200 | 5000.000 | 173.250 | 9.772 |
| 7182.400 | 5000.000 | 150.750 | 12.430 |
| 7173.600 | 5000.000 | 182.750 | 14.610 |
| 7164.800 | 5000.000 | 296.000 | 16.132 |
| 7156.000 | 5000.000 | 160.500 | 18.515 |
| 7147.200 | 5000.000 | -9.250 | 5.602 |

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|---|---|---|---|
| 7138.400 | 5000.000 | 67.250 | -20.470 |
| 7129.600 | 5000.000 | 164.000 | -20.470 |
| 7120.800 | 5000.000 | 128.750 | -8.117 |
| 7112.000 | 5000.000 | 152.750 | 0.770 |
| 7103.200 | 5000.000 | 84.250 | -20.470 |
| 7094.400 | 5000.000 | 37.000 | -20.470 |
| 7085.600 | 5000.000 | 75.000 | -20.470 |
| 7076.800 | 5000.000 | 146.000 | 2.245 |
| 7068.000 | 5000.000 | 179.500 | 2.815 |
| 7059.200 | 5000.000 | 181.500 | 0.765 |
| 7050.400 | 5000.000 | -121.000 | -20.470 |
| 7041.600 | 5000.000 | 170.000 | 3.975 |
| 7032.800 | 5000.000 | 201.000 | 20.477 |
| 7024.000 | 5000.000 | 159.000 | 4.282 |
| 7015.200 | 5000.000 | 144.000 | 20.477 |
| 7006.400 | 5000.000 | 541.500 | 20.477 |
| 6997.600 | 5000.000 | 796.250 | 20.477 |
| 6988.800 | 5000.000 | 1006.500 | 20.477 |
| 6980.000 | 5000.000 | 401.750 | 20.477 |
| 6971.200 | 5000.000 | 638.250 | 20.477 |
| 6962.400 | 5000.000 | 633.500 | 20.477 |
| 6953.600 | 5000.000 | 423.250 | 20.477 |
| 6944.800 | 5000.000 | 585.000 | 20.477 |
| 6936.000 | 5000.000 | 545.250 | 20.477 |
| 6927.200 | 5000.000 | 798.500 | 20.477 |
| 6918.400 | 5000.000 | 478.500 | 20.477 |
| 6909.600 | 5000.000 | 224.000 | 20.477 |
| 6900.800 | 5000.000 | 281.500 | 19.290 |
| 6892.000 | 5000.000 | 201.000 | 13.575 |
| 6883.200 | 5000.000 | 243.250 | 12.580 |
| 6874.400 | 5000.000 | 202.250 | 9.775 |
| 6865.600 | 5000.000 | 223.000 | 10.565 |
| 6856.800 | 5000.000 | 285.000 | 14.582 |
| 6848.000 | 5000.000 | 259.250 | 13.587 |
| 6839.200 | 5000.000 | 221.000 | 12.700 |
| 6830.400 | 5000.000 | 241.000 | 12.262 |
| 6821.600 | 5000.000 | 272.000 | 12.875 |
| 6812.800 | 5000.000 | 268.250 | 12.915 |
| 6804.000 | 5000.000 | 275.000 | 13.342 |
| 6795.200 | 5000.000 | 297.250 | 16.175 |
| 6786.400 | 5000.000 | 232.000 | 18.657 |
| 6777.600 | 5000.000 | 459.000 | 20.477 |
| 6768.800 | 5000.000 | 592.250 | 20.477 |
| 6760.000 | 5000.000 | 471.000 | 20.477 |
| 6751.200 | 5000.000 | 486.750 | 20.477 |
| 6742.400 | 5000.000 | 535.250 | 20.477 |
| 6733.600 | 5000.000 | 652.250 | 20.477 |
| 6724.800 | 5000.000 | 545.000 | 20.477 |
| 6716.000 | 5000.000 | 567.250 | 20.477 |
| 6707.200 | 5000.000 | 517.000 | 20.477 |

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|---|---|---|---|
| 6698.400 | 5000.000 | 625.250 | 20.477 |
| 6689.600 | 5000.000 | 483.000 | 20.477 |
| 6680.800 | 5000.000 | 468.500 | 20.477 |
| 6672.000 | 5000.000 | 408.250 | 20.477 |
| 6663.200 | 5000.000 | 343.250 | 20.477 |
| 6654.400 | 5000.000 | 275.000 | 17.090 |
| 6645.600 | 5000.000 | 208.250 | 9.037 |
| 6636.800 | 5000.000 | 155.000 | 7.157 |
| 6628.000 | 5000.000 | 164.000 | 5.285 |
| 6619.200 | 5000.000 | 138.250 | 4.035 |
| 6610.400 | 5000.000 | 117.000 | 3.415 |
| 6601.600 | 5000.000 | 102.000 | 1.497 |
| 6592.800 | 5000.000 | 91.750 | 0.730 |
| 6584.000 | 5000.000 | 81.500 | 0.310 |
| 6575.200 | 5000.000 | 73.000 | 0.292 |
| 6566.400 | 5000.000 | 80.000 | -0.020 |
| 6557.600 | 5000.000 | 78.500 | 0.100 |
| 6548.800 | 5000.000 | 82.000 | -0.110 |
| 6540.000 | 5000.000 | 87.500 | -0.240 |
| 6531.200 | 5000.000 | 83.000 | -0.080 |
| 6522.400 | 5000.000 | 81.000 | -0.099 |
| 6513.600 | 5000.000 | 78.250 | -0.640 |
| 6504.800 | 5000.000 | 79.000 | -0.750 |
| 6496.000 | 5000.000 | 82.000 | -0.622 |
| 6487.200 | 5000.000 | 81.750 | -0.760 |
| 6478.400 | 5000.000 | 81.000 | -1.070 |
| 6469.600 | 5000.000 | 79.500 | -1.050 |
| 6460.800 | 5000.000 | 80.000 | -1.310 |
| 6452.000 | 5000.000 | 79.000 | -1.840 |
| 6443.200 | 5000.000 | 72.000 | -0.930 |
| 6434.400 | 5000.000 | 69.000 | -0.861 |
| 6425.600 | 5000.000 | 68.000 | -1.500 |
| 6416.800 | 5000.000 | 65.000 | -2.102 |
| 6408.000 | 5000.000 | 60.000 | -2.192 |
| 6399.200 | 5000.000 | 60.000 | -1.362 |
| 6390.400 | 5000.000 | 52.500 | -2.025 |
| 6381.600 | 5000.000 | 54.500 | -1.470 |
| 6372.800 | 5000.000 | 55.000 | -1.360 |
| 6364.000 | 5000.000 | 54.500 | -1.540 |
| 6355.200 | 5000.000 | 53.000 | -1.450 |
| 6346.400 | 5000.000 | 50.000 | -1.400 |
| 6337.600 | 5000.000 | 51.000 | -1.500 |
| 6328.800 | 5000.000 | 53.000 | -1.800 |
| 6320.000 | 5000.000 | 54.000 | -1.985 |
| 6311.200 | 5000.000 | 52.000 | -1.707 |
| 6302.400 | 5000.000 | 52.000 | -1.140 |
| 6293.600 | 5000.000 | 55.750 | -1.490 |
| 6284.800 | 5000.000 | 55.000 | -1.610 |
| 6276.000 | 5000.000 | 51.000 | -1.780 |
| 6267.200 | 5000.000 | 55.000 | -1.650 |

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|---|---|---|---|
| 6258.400 | 5000.000 | 55.000 | -1.550 |
| 6249.600 | 5000.000 | 55.000 | -1.610 |
| 6240.800 | 5000.000 | 56.250 | -1.280 |
| 6232.000 | 5000.000 | 56.250 | -1.420 |
| 6223.200 | 5000.000 | 58.000 | -1.192 |
| 6214.400 | 5000.000 | 57.500 | -1.305 |
| 6205.600 | 5000.000 | 57.250 | -1.220 |
| 6196.800 | 5000.000 | 56.000 | -1.220 |
| 6188.000 | 5000.000 | 57.000 | -1.450 |
| 6179.200 | 5000.000 | 57.000 | -1.540 |
| 6170.400 | 5000.000 | 57.000 | -1.267 |
| 6161.600 | 5000.000 | 56.000 | -1.350 |
| 6152.800 | 5000.000 | 56.000 | -1.372 |
| 6144.000 | 5000.000 | 55.000 | -1.560 |
| 6135.200 | 5000.000 | 54.500 | -1.540 |
| 6126.400 | 5000.000 | 56.250 | -1.392 |
| 6117.600 | 5000.000 | 58.250 | -1.350 |
| 6108.800 | 5000.000 | 59.000 | -1.310 |
| 6100.000 | 5000.000 | 62.000 | -1.120 |
| 6091.200 | 5000.000 | 64.000 | -1.110 |
| 6082.400 | 5000.000 | 75.000 | -0.590 |
| 6073.600 | 5000.000 | 73.000 | -0.976 |
| 6064.800 | 5000.000 | 75.000 | -1.162 |
| 6056.000 | 5000.000 | 81.000 | 0.080 |
| 6047.200 | 5000.000 | 80.500 | 0.240 |
| 6038.400 | 5000.000 | 78.500 | -0.300 |
| 6029.600 | 5000.000 | 78.000 | -0.640 |
| 6020.800 | 5000.000 | 78.000 | -0.445 |
| 6012.000 | 5000.000 | 76.000 | -0.670 |
| 6003.200 | 5000.000 | 73.500 | -0.350 |
| 5994.400 | 5000.000 | 72.750 | -0.580 |
| 5985.600 | 5000.000 | 67.000 | -0.770 |
| 5976.800 | 5000.000 | 69.000 | -0.520 |
| 5968.000 | 5000.000 | 65.000 | -0.715 |
| 5959.200 | 5000.000 | 60.000 | -1.170 |
| 5950.400 | 5000.000 | 58.000 | -0.910 |
| 5941.600 | 5000.000 | 54.500 | -0.980 |
| 5932.800 | 5000.000 | 51.000 | -1.430 |
| 5924.000 | 5000.000 | 45.250 | -1.390 |
| 5915.200 | 5000.000 | 47.000 | -1.390 |
| 5906.400 | 5000.000 | 48.000 | -1.080 |
| 5897.600 | 5000.000 | 48.000 | -1.380 |
| 5888.800 | 5000.000 | 50.000 | -1.280 |
| 5880.000 | 5000.000 | 50.000 | -1.140 |
| 5871.200 | 5000.000 | 48.000 | -1.400 |
| 5862.400 | 5000.000 | 47.000 | -1.470 |
| 5853.600 | 5000.000 | 46.000 | -1.455 |
| 5844.800 | 5000.000 | 47.000 | -1.420 |
| 5836.000 | 5000.000 | 46.000 | -1.170 |
| 5827.200 | 5000.000 | 44.000 | -1.290 |

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|---|---|---|---|
| 5818.400 | 5000.000 | 42.000 | -1.177 |
| 5809.600 | 5000.000 | 41.750 | -1.340 |
| 5800.800 | 5000.000 | 38.250 | -1.767 |
| 5792.000 | 5000.000 | 39.000 | -2.040 |
| 5783.200 | 5000.000 | 41.000 | -1.270 |
| 5774.400 | 5000.000 | 43.000 | -0.550 |
| 5765.600 | 5000.000 | 44.000 | -0.145 |
| 5756.800 | 5000.000 | 46.000 | 0.330 |
| 5748.000 | 5000.000 | 46.000 | 0.545 |
| 5739.200 | 5000.000 | 45.000 | 0.440 |
| 5730.400 | 5000.000 | 41.000 | -0.420 |
| 5721.600 | 5000.000 | 39.000 | -1.410 |
| 5712.800 | 5000.000 | 38.000 | -1.437 |
| 5704.000 | 5000.000 | 38.000 | -1.560 |
| 5695.200 | 5000.000 | 40.000 | -1.390 |
| 5686.400 | 5000.000 | 40.000 | -1.500 |
| 5677.600 | 5000.000 | 39.250 | -1.410 |
| 5668.800 | 5000.000 | 41.000 | -1.320 |
| 5660.000 | 5000.000 | 41.000 | -1.420 |
| 5651.200 | 5000.000 | 37.000 | -1.720 |
| 5642.400 | 5000.000 | 37.000 | -1.850 |
| 5633.600 | 5000.000 | 40.000 | -1.330 |
| 5624.800 | 5000.000 | 41.000 | -1.417 |
| 5616.000 | 5000.000 | 37.000 | -1.940 |
| 5607.200 | 5000.000 | 36.000 | -1.917 |
| 5598.400 | 5000.000 | 38.000 | -1.630 |
| 5589.600 | 5000.000 | 42.000 | -1.285 |
| 5580.800 | 5000.000 | 41.000 | -1.270 |
| 5572.000 | 5000.000 | 44.000 | -1.300 |
| 5563.200 | 5000.000 | 44.500 | -1.240 |
| 5554.400 | 5000.000 | 47.000 | -1.320 |
| 5545.600 | 5000.000 | 47.000 | -1.540 |
| 5536.800 | 5000.000 | 47.000 | -1.580 |
| 5528.000 | 5000.000 | 47.000 | -1.370 |
| 5519.200 | 5000.000 | 48.000 | -1.350 |
| 5510.400 | 5000.000 | 48.000 | -1.430 |
| 5501.600 | 5000.000 | 49.000 | -1.517 |
| 5492.800 | 5000.000 | 50.000 | -1.487 |
| 5484.000 | 5000.000 | 48.000 | -1.330 |
| 5475.200 | 5000.000 | 49.750 | -1.210 |
| 5466.400 | 5000.000 | 49.000 | -1.312 |
| 5457.600 | 5000.000 | 47.750 | -1.350 |
| 5448.800 | 5000.000 | 46.000 | -1.390 |
| 5440.000 | 5000.000 | 44.000 | -1.520 |
| 5431.200 | 5000.000 | 41.000 | -1.900 |
| 5422.400 | 5000.000 | 42.250 | -1.597 |
| 5413.600 | 5000.000 | 43.000 | -1.507 |
| 5404.800 | 5000.000 | 48.000 | -1.460 |
| 5396.000 | 5000.000 | 64.000 | -1.580 |
| 5387.200 | 5000.000 | 81.000 | -1.250 |

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|---|---|---|---|
| 5378.400 | 5000.000 | 108.000 | -0.680 |
| 5369.600 | 5000.000 | 137.000 | 1.380 |
| 5360.800 | 5000.000 | 141.000 | 2.760 |
| 5352.000 | 5000.000 | 143.000 | 4.680 |
| 5343.200 | 5000.000 | 139.000 | 5.342 |
| 5334.400 | 5000.000 | 124.250 | 5.370 |
| 5325.600 | 5000.000 | 118.000 | 5.290 |
| 5316.800 | 5000.000 | 111.000 | 5.115 |
| 5308.000 | 5000.000 | 104.000 | 5.405 |
| 5299.200 | 5000.000 | 93.000 | 4.815 |
| 5290.400 | 5000.000 | 84.000 | 4.845 |
| 5281.600 | 5000.000 | 86.750 | 4.580 |
| 5272.800 | 5000.000 | 86.000 | 4.710 |
| 5264.000 | 5000.000 | 79.000 | 4.037 |
| 5255.200 | 5000.000 | 78.000 | 4.550 |
| 5246.400 | 5000.000 | 82.000 | 4.110 |
| 5237.600 | 5000.000 | 88.000 | 5.432 |
| 5228.800 | 5000.000 | 90.000 | 5.990 |
| 5220.000 | 5000.000 | 98.000 | 6.325 |
| 5211.200 | 5000.000 | 104.250 | 7.122 |
| 5202.400 | 5000.000 | 107.000 | 7.160 |
| 5193.600 | 5000.000 | 104.000 | 6.680 |
| 5184.800 | 5000.000 | 103.000 | 7.247 |
| 5176.000 | 5000.000 | 106.000 | 7.702 |
| 5167.200 | 5000.000 | 107.000 | 7.700 |
| 5158.400 | 5000.000 | 102.000 | 6.947 |
| 5149.600 | 5000.000 | 99.000 | 6.732 |
| 5140.800 | 5000.000 | 95.000 | 6.340 |
| 5132.000 | 5000.000 | 96.000 | 6.370 |
| 5123.200 | 5000.000 | 95.000 | 6.380 |
| 5114.400 | 5000.000 | 92.000 | 5.790 |
| 5105.600 | 5000.000 | 94.000 | 5.000 |
| 5096.800 | 5000.000 | 89.000 | 4.750 |
| 5088.000 | 5000.000 | 90.000 | 4.700 |
| 5079.200 | 5000.000 | 89.000 | 4.440 |
| 5070.400 | 5000.000 | 88.000 | 4.350 |
| 5061.600 | 5000.000 | 88.000 | 4.247 |
| 5052.800 | 5000.000 | 92.000 | 4.350 |
| 5044.000 | 5000.000 | 88.000 | 4.040 |
| 5035.200 | 5000.000 | 84.000 | 3.760 |
| 5026.400 | 5000.000 | 78.250 | 3.440 |
| 5017.600 | 5000.000 | 77.000 | 3.650 |
| 5008.800 | 5000.000 | 76.000 | 3.892 |
| 5000.000 | 5000.000 | 72.000 | 3.245 |
| 5050.000 | 5100.000 | 35.500 | -2.390 |
| 5058.383 | 5100.000 | 36.000 | -2.470 |
| 5066.766 | 5100.000 | 37.000 | -2.400 |
| 5075.148 | 5100.000 | 40.000 | -2.320 |
| 5083.531 | 5100.000 | 40.000 | -2.317 |
| 5091.914 | 5100.000 | 43.000 | -2.455 |

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|---|---|---|---|
| 5100.297 | 5100.000 | 43.250 | -2.350 |
| 5108.680 | 5100.000 | 45.000 | -2.267 |
| 5117.063 | 5100.000 | 46.250 | -2.222 |
| 5125.445 | 5100.000 | 46.000 | -2.242 |
| 5133.829 | 5100.000 | 48.000 | -2.190 |
| 5142.211 | 5100.000 | 48.000 | -2.162 |
| 5150.594 | 5100.000 | 48.000 | -2.190 |
| 5158.977 | 5100.000 | 49.000 | -2.277 |
| 5167.360 | 5100.000 | 49.000 | -2.340 |
| 5175.743 | 5100.000 | 49.000 | -2.320 |
| 5184.125 | 5100.000 | 45.000 | -2.200 |
| 5192.508 | 5100.000 | 46.000 | -2.230 |
| 5200.891 | 5100.000 | 44.000 | -2.280 |
| 5209.274 | 5100.000 | 43.000 | -2.080 |
| 5217.657 | 5100.000 | 43.250 | -2.480 |
| 5226.040 | 5100.000 | 43.000 | -2.385 |
| 5234.422 | 5100.000 | 46.000 | -2.310 |
| 5242.805 | 5100.000 | 46.000 | -2.290 |
| 5251.188 | 5100.000 | 49.000 | -2.220 |
| 5259.571 | 5100.000 | 47.000 | -2.357 |
| 5267.954 | 5100.000 | 51.000 | -2.187 |
| 5276.336 | 5100.000 | 49.000 | -2.310 |
| 5284.719 | 5100.000 | 49.000 | -2.190 |
| 5293.103 | 5100.000 | 48.000 | -2.352 |
| 5301.485 | 5100.000 | 46.500 | -2.280 |
| 5309.868 | 5100.000 | 45.250 | -2.520 |
| 5318.251 | 5100.000 | 44.000 | -2.380 |
| 5326.634 | 5100.000 | 44.000 | -2.410 |
| 5335.017 | 5100.000 | 43.750 | -2.332 |
| 5343.399 | 5100.000 | 43.000 | -2.430 |
| 5351.782 | 5100.000 | 42.000 | -2.497 |
| 5360.165 | 5100.000 | 41.000 | -2.410 |
| 5368.548 | 5100.000 | 42.250 | -2.337 |
| 5376.931 | 5100.000 | 43.500 | -2.430 |
| 5385.313 | 5100.000 | 42.000 | -2.440 |
| 5393.696 | 5100.000 | 41.000 | -2.540 |
| 5402.079 | 5100.000 | 43.000 | -2.355 |
| 5410.462 | 5100.000 | 41.000 | -2.370 |
| 5418.845 | 5100.000 | 42.000 | -2.400 |
| 5427.228 | 5100.000 | 41.000 | -2.350 |
| 5435.610 | 5100.000 | 40.000 | -2.487 |
| 5443.993 | 5100.000 | 39.000 | -2.540 |
| 5452.376 | 5100.000 | 41.000 | -2.450 |
| 5460.759 | 5100.000 | 40.000 | -2.500 |
| 5469.142 | 5100.000 | 39.000 | -2.440 |
| 5477.525 | 5100.000 | 40.000 | -2.430 |
| 5485.908 | 5100.000 | 40.500 | -2.422 |
| 5494.291 | 5100.000 | 39.000 | -2.520 |
| 5502.673 | 5100.000 | 38.750 | -2.590 |
| 5511.056 | 5100.000 | 38.000 | -2.537 |

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|---|---|---|---|
| 5519.439 | 5100.000 | 36.000 | -2.717 |
| 5527.822 | 5100.000 | 34.000 | -2.650 |
| 5536.205 | 5100.000 | 34.000 | -2.550 |
| 5544.587 | 5100.000 | 33.000 | -2.727 |
| 5552.970 | 5100.000 | 31.250 | -2.560 |
| 5561.353 | 5100.000 | 32.000 | -2.752 |
| 5569.736 | 5100.000 | 31.750 | -2.570 |
| 5578.119 | 5100.000 | 31.000 | -2.675 |
| 5586.501 | 5100.000 | 30.250 | -2.630 |
| 5594.884 | 5100.000 | 31.000 | -2.852 |
| 5603.267 | 5100.000 | 33.000 | -2.555 |
| 5611.650 | 5100.000 | 31.000 | -2.760 |
| 5620.033 | 5100.000 | 32.000 | -2.510 |
| 5628.416 | 5100.000 | 31.000 | -2.710 |
| 5636.799 | 5100.000 | 31.000 | -2.640 |
| 5645.182 | 5100.000 | 31.000 | -2.650 |
| 5653.564 | 5100.000 | 31.000 | -2.602 |
| 5661.947 | 5100.000 | 30.000 | -2.600 |
| 5670.330 | 5100.000 | 30.000 | -2.515 |
| 5678.713 | 5100.000 | 31.000 | -2.590 |
| 5687.096 | 5100.000 | 31.250 | -2.510 |
| 5695.479 | 5100.000 | 31.000 | -2.660 |
| 5703.861 | 5100.000 | 32.750 | -2.490 |
| 5712.244 | 5100.000 | 31.000 | -2.370 |
| 5720.627 | 5100.000 | 30.000 | -2.320 |
| 5729.010 | 5100.000 | 31.000 | -2.637 |
| 5737.393 | 5100.000 | 32.000 | -2.590 |
| 5745.775 | 5100.000 | 30.000 | -2.560 |
| 5754.158 | 5100.000 | 31.000 | -2.370 |
| 5762.541 | 5100.000 | 32.000 | -2.440 |
| 5770.924 | 5100.000 | 32.750 | -2.410 |
| 5779.307 | 5100.000 | 33.000 | -2.510 |
| 5787.690 | 5100.000 | 34.000 | -2.330 |
| 5796.073 | 5100.000 | 34.000 | -2.520 |
| 5804.456 | 5100.000 | 34.000 | -2.570 |
| 5812.838 | 5100.000 | 34.000 | -2.480 |
| 5821.221 | 5100.000 | 34.000 | -2.470 |
| 5829.604 | 5100.000 | 34.000 | -2.470 |
| 5837.987 | 5100.000 | 32.000 | -2.540 |
| 5846.370 | 5100.000 | 33.000 | -2.410 |
| 5854.752 | 5100.000 | 33.000 | -2.520 |
| 5863.135 | 5100.000 | 34.000 | -2.450 |
| 5871.518 | 5100.000 | 34.000 | -2.570 |
| 5879.901 | 5100.000 | 35.000 | -2.540 |
| 5888.284 | 5100.000 | 34.000 | -2.430 |
| 5896.667 | 5100.000 | 35.000 | -2.370 |
| 5905.049 | 5100.000 | 37.000 | -2.460 |
| 5913.432 | 5100.000 | 37.000 | -2.390 |
| 5921.815 | 5100.000 | 40.000 | -2.297 |
| 5930.198 | 5100.000 | 43.000 | -2.380 |

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|---|---|---|---|
| 5938.581 | 5100.000 | 44.000 | -2.460 |
| 5946.964 | 5100.000 | 44.250 | -2.227 |
| 5955.347 | 5100.000 | 48.250 | -2.290 |
| 5963.729 | 5100.000 | 48.000 | -2.030 |
| 5972.112 | 5100.000 | 49.000 | -2.270 |
| 5980.495 | 5100.000 | 50.500 | -2.270 |
| 5988.878 | 5100.000 | 51.000 | -2.420 |
| 5997.261 | 5100.000 | 55.000 | -2.280 |
| 6005.644 | 5100.000 | 54.000 | -2.330 |
| 6014.026 | 5100.000 | 53.750 | -2.620 |
| 6022.409 | 5100.000 | 55.250 | -2.107 |
| 6030.792 | 5100.000 | 58.000 | -2.060 |
| 6039.175 | 5100.000 | 58.000 | -2.300 |
| 6047.558 | 5100.000 | 59.250 | -2.030 |
| 6055.940 | 5100.000 | 60.000 | -1.967 |
| 6064.323 | 5100.000 | 59.250 | -2.240 |
| 6072.706 | 5100.000 | 60.250 | -2.010 |
| 6081.089 | 5100.000 | 62.000 | -1.977 |
| 6089.472 | 5100.000 | 67.250 | -2.322 |
| 6097.855 | 5100.000 | 64.000 | -2.480 |
| 6106.238 | 5100.000 | 63.000 | -2.070 |
| 6114.621 | 5100.000 | 64.250 | -1.917 |
| 6123.003 | 5100.000 | 65.000 | -2.310 |
| 6131.386 | 5100.000 | 66.000 | -1.760 |
| 6139.769 | 5100.000 | 69.000 | -1.700 |
| 6148.152 | 5100.000 | 68.000 | -1.550 |
| 6156.535 | 5100.000 | 70.000 | -1.750 |
| 6164.917 | 5100.000 | 73.000 | -1.730 |
| 6173.300 | 5100.000 | 73.000 | -1.570 |
| 6181.683 | 5100.000 | 73.000 | -1.710 |
| 6190.066 | 5100.000 | 73.000 | -1.510 |
| 6198.449 | 5100.000 | 74.000 | -1.530 |
| 6206.832 | 5100.000 | 74.000 | -1.510 |
| 6215.214 | 5100.000 | 75.000 | -1.550 |
| 6223.597 | 5100.000 | 70.000 | -1.660 |
| 6231.980 | 5100.000 | 70.000 | -1.490 |
| 6240.363 | 5100.000 | 69.000 | -1.490 |
| 6248.746 | 5100.000 | 68.000 | -1.617 |
| 6257.129 | 5100.000 | 67.000 | -1.550 |
| 6265.512 | 5100.000 | 69.000 | -1.530 |
| 6273.895 | 5100.000 | 72.000 | -1.580 |
| 6282.277 | 5100.000 | 72.000 | -1.730 |
| 6290.660 | 5100.000 | 71.000 | -1.475 |
| 6299.043 | 5100.000 | 76.250 | -1.110 |
| 6307.426 | 5100.000 | 83.000 | -1.082 |
| 6315.809 | 5100.000 | 89.750 | -1.190 |
| 6324.191 | 5100.000 | 85.000 | -0.930 |
| 6332.574 | 5100.000 | 81.000 | -1.020 |
| 6340.957 | 5100.000 | 84.000 | -0.620 |
| 6349.340 | 5100.000 | 84.000 | -0.450 |

| | | | |
|---|---|---|---|
| 6357.723 | 5100.000 | 86.000 | -0.437 |
| 6366.105 | 5100.000 | 88.000 | 0.840 |
| 6374.488 | 5100.000 | 86.000 | -0.237 |
| 6382.871 | 5100.000 | 85.000 | -0.285 |
| 6391.254 | 5100.000 | 86.000 | -0.120 |
| 6399.637 | 5100.000 | 78.250 | -0.420 |
| 6408.020 | 5100.000 | 86.000 | 0.032 |
| 6416.403 | 5100.000 | 87.000 | 0.450 |
| 6424.786 | 5100.000 | 86.000 | 0.417 |
| 6433.168 | 5100.000 | 88.250 | 0.370 |
| 6441.551 | 5100.000 | 89.000 | 0.440 |
| 6449.934 | 5100.000 | 95.000 | 0.350 |
| 6458.317 | 5100.000 | 97.000 | 0.452 |
| 6466.700 | 5100.000 | 97.000 | 0.740 |
| 6475.083 | 5100.000 | 101.000 | 1.030 |
| 6483.465 | 5100.000 | 107.000 | 1.020 |
| 6491.848 | 5100.000 | 112.000 | 1.277 |
| 6500.231 | 5100.000 | 112.000 | 1.110 |
| 6508.614 | 5100.000 | 117.000 | 1.492 |
| 6516.997 | 5100.000 | 119.000 | 2.132 |
| 6525.379 | 5100.000 | 128.000 | 2.160 |
| 6533.762 | 5100.000 | 129.500 | 2.660 |
| 6542.145 | 5100.000 | 130.750 | 2.302 |
| 6550.528 | 5100.000 | 130.000 | 2.430 |
| 6558.911 | 5100.000 | 136.000 | 2.580 |
| 6567.294 | 5100.000 | 147.000 | 3.190 |
| 6575.677 | 5100.000 | 149.000 | 3.720 |
| 6584.060 | 5100.000 | 142.000 | 3.670 |
| 6592.442 | 5100.000 | 141.000 | 3.925 |
| 6600.825 | 5100.000 | 160.000 | 6.392 |
| 6609.208 | 5100.000 | 153.000 | 4.120 |
| 6617.591 | 5100.000 | 186.000 | 5.572 |
| 6625.974 | 5100.000 | 243.000 | 11.307 |
| 6634.356 | 5100.000 | 334.250 | 20.385 |
| 6642.739 | 5100.000 | 411.000 | 20.477 |
| 6651.122 | 5100.000 | 412.250 | 20.477 |
| 6659.505 | 5100.000 | 461.250 | 20.477 |
| 6667.888 | 5100.000 | 475.000 | 20.477 |
| 6676.271 | 5100.000 | 466.250 | 20.477 |
| 6684.653 | 5100.000 | 447.500 | 20.477 |
| 6693.036 | 5100.000 | 500.000 | 20.477 |
| 6701.419 | 5100.000 | 550.500 | 20.477 |
| 6709.802 | 5100.000 | 371.000 | 20.477 |
| 6718.185 | 5100.000 | 427.000 | 20.477 |
| 6726.568 | 5100.000 | 298.500 | 20.477 |
| 6734.951 | 5100.000 | 322.250 | 20.477 |
| 6743.333 | 5100.000 | 345.000 | 20.477 |
| 6751.716 | 5100.000 | 241.750 | 15.020 |
| 6760.099 | 5100.000 | 177.250 | 11.380 |
| 6768.482 | 5100.000 | 231.000 | 11.010 |

| | | | |
|---|---|---|---|
| 6776.865 | 5100.000 | 208.000 | 9.890 |
| 6785.248 | 5100.000 | 199.250 | 9.960 |
| 6793.630 | 5100.000 | 107.000 | 3.587 |
| 6802.013 | 5100.000 | 256.000 | 11.152 |
| 6810.396 | 5100.000 | 259.000 | 11.775 |
| 6818.779 | 5100.000 | 222.000 | 10.420 |
| 6827.162 | 5100.000 | 216.250 | 10.937 |
| 6835.544 | 5100.000 | 240.000 | 12.517 |
| 6843.927 | 5100.000 | 265.250 | 12.520 |
| 6852.310 | 5100.000 | 145.000 | 7.180 |
| 6860.693 | 5100.000 | 261.500 | 13.685 |
| 6869.076 | 5100.000 | 245.000 | 13.092 |
| 6877.458 | 5100.000 | 203.000 | 4.592 |
| 6885.842 | 5100.000 | 181.250 | 12.085 |
| 6894.225 | 5100.000 | 155.000 | 10.202 |
| 6902.607 | 5100.000 | 232.000 | 16.310 |
| 6910.990 | 5100.000 | 255.250 | 20.477 |
| 6919.373 | 5100.000 | 223.250 | 19.162 |
| 6927.756 | 5100.000 | 221.250 | 20.477 |
| 6936.139 | 5100.000 | 219.000 | 6.685 |
| 6944.521 | 5100.000 | 297.500 | 20.477 |
| 6952.904 | 5100.000 | 407.500 | 20.477 |
| 6961.287 | 5100.000 | 321.250 | 20.477 |
| 6969.670 | 5100.000 | 504.250 | 20.477 |
| 6978.053 | 5100.000 | 406.250 | 20.477 |
| 6986.436 | 5100.000 | 507.500 | 20.477 |
| 6994.818 | 5100.000 | 434.500 | 20.477 |
| 7003.201 | 5100.000 | 256.250 | 19.775 |
| 7011.584 | 5100.000 | 113.500 | -11.732 |
| 7019.967 | 5100.000 | 226.000 | 20.477 |
| 7028.350 | 5100.000 | 205.250 | 20.477 |
| 7036.732 | 5100.000 | 212.250 | 20.477 |
| 7045.116 | 5100.000 | 205.250 | 20.477 |
| 7053.499 | 5100.000 | 176.000 | 14.702 |
| 7061.881 | 5100.000 | 130.000 | 11.817 |
| 7070.264 | 5100.000 | 215.750 | 20.477 |
| 7078.647 | 5100.000 | 282.250 | 20.477 |
| 7087.030 | 5100.000 | 290.750 | 20.477 |
| 7095.413 | 5100.000 | 216.500 | 20.477 |
| 7103.795 | 5100.000 | 122.000 | 12.395 |
| 7112.178 | 5100.000 | 157.000 | 20.477 |
| 7120.561 | 5100.000 | 178.250 | 20.477 |
| 7128.944 | 5100.000 | 233.000 | 20.477 |
| 7137.327 | 5100.000 | 227.250 | 20.477 |
| 7145.709 | 5100.000 | 145.500 | 19.600 |
| 7154.092 | 5100.000 | 118.000 | 17.365 |
| 7162.475 | 5100.000 | 283.750 | 20.477 |
| 7170.858 | 5100.000 | 351.000 | 20.477 |
| 7179.241 | 5100.000 | 524.500 | 20.477 |
| 7187.624 | 5100.000 | 383.250 | 20.477 |

| | | | |
|---|---|---|---|
| 7196.007 | 5100.000 | 328.250 | 20.477 |
| 7204.390 | 5100.000 | 390.750 | 20.477 |
| 7212.772 | 5100.000 | 229.250 | 14.977 |
| 7221.155 | 5100.000 | 234.250 | 2.630 |
| 7229.538 | 5100.000 | 404.250 | 20.477 |
| 7237.921 | 5100.000 | 264.750 | 20.477 |
| 7246.304 | 5100.000 | 204.000 | 12.715 |
| 7254.687 | 5100.000 | 138.000 | 7.417 |
| 7263.069 | 5100.000 | 212.000 | 6.820 |
| 7271.452 | 5100.000 | 181.000 | 5.610 |
| 7279.835 | 5100.000 | 174.000 | 6.002 |
| 7288.218 | 5100.000 | 193.000 | 6.225 |
| 7296.601 | 5100.000 | 187.000 | 7.015 |
| 7304.983 | 5100.000 | 264.000 | 11.070 |
| 7313.366 | 5100.000 | 283.000 | 12.405 |
| 7321.749 | 5100.000 | 299.000 | 14.102 |
| 7330.132 | 5100.000 | 139.500 | 4.460 |
| 7338.515 | 5100.000 | 101.000 | 0.320 |
| 7346.897 | 5100.000 | 184.000 | 5.780 |
| 7355.281 | 5100.000 | 183.000 | 4.320 |
| 7363.664 | 5100.000 | 127.000 | 1.860 |
| 7372.046 | 5100.000 | 97.000 | 1.315 |
| 7380.429 | 5100.000 | 113.000 | 0.670 |
| 7388.812 | 5100.000 | 80.000 | -0.140 |
| 7397.195 | 5100.000 | 108.000 | -0.195 |
| 7405.578 | 5100.000 | 85.750 | -0.840 |
| 7413.960 | 5100.000 | 66.000 | -1.180 |
| 7422.343 | 5100.000 | 67.000 | -1.250 |
| 7430.726 | 5100.000 | 57.000 | 0.650 |
| 7439.109 | 5100.000 | 56.750 | 3.115 |
| 7447.492 | 5100.000 | 51.000 | 10.555 |
| 7455.875 | 5100.000 | 52.250 | 16.097 |
| 7464.257 | 5100.000 | 51.000 | 16.760 |
| 7472.640 | 5100.000 | 49.000 | 17.552 |
| 7481.023 | 5100.000 | 55.250 | 12.127 |
| 7489.406 | 5100.000 | 50.000 | 8.567 |
| 7497.789 | 5100.000 | 53.000 | 6.570 |
| 7506.171 | 5100.000 | 50.000 | 4.735 |
| 7514.555 | 5100.000 | 59.000 | 1.320 |
| 7522.938 | 5100.000 | 62.750 | 2.887 |
| 7531.320 | 5100.000 | 61.000 | 4.460 |
| 7539.703 | 5100.000 | 77.000 | 5.972 |
| 7548.086 | 5100.000 | 92.000 | 9.315 |
| 7556.469 | 5100.000 | 122.000 | 14.602 |
| 7564.852 | 5100.000 | 133.000 | 16.735 |
| 7573.234 | 5100.000 | -10.750 | -18.030 |
| 7581.617 | 5100.000 | 40.250 | -1.530 |
| 7590.000 | 5100.000 | 179.250 | 20.477 |

**G-858 Magnetometer Survey Notes** Page: 1

Site Name: National Zinc Site Dates: 06/16/99

Operator: Randolph L. Brown

Survey Information/Notes :

Surveys conducted 06/08/99-06/09/99
Arrive site 1545 06/08/99
Area grid 500' X 500' E-W and N-S with surveyor's lath stakes

Calibration Date/Time: 06/08/99/1615 Weather: Humid, partly cloudy, 90°
Tuned to 53,700 nT, Signal strength 8.9
Base Station Reference Point:
Located 50 feet due south of grid point N 5000, E 7000

Base Station Initial Date/Time/Reading (nT): 06/08/99/1922 53,704.5
Base Station Final Time/reading (nT) 06/08/99/2144 53,702.2
Final Instrument Check: 2150
Battery, memory OK on base station and survey units, sensor QC within tolerance on both units.
Leave site 2230 06/09/99

Arrive site 0745 06/09/99 Weather: Very humid, partly cloudy, 89°
Same base station location utilized Tuned to 53,700 nT, Signal Strength 8.7
Base Station Initial Date/Time/Reading (nT): 06/09/99/0840 53,703.4
Base Station Final Time/reading (nT) 06/09/99/1125 54,009.4
Final Instrument Check: 1137 Battery low on survey unit after last station, memory OK, battery OK on base station unit, sensor QC within tolerance on both units.
Finish magnetometer survey 1200

Notes: Instrument warm-up and internal QC checks within tolerance both days. Sensor, memory, datalogger O.K. Recording single sensor in total field mode with autologging recorder set at 2 sec. datalogging sample interval.

Additional Notes: Railroad tracks bisecting site southeast to north-northwest. Some metal buildings and debris present in south-central and southeast portions of survey area.

BEGIN SURVEY DATA FILE

| X | Y | READING_1 | DIURNAL_1 | TIME | DATE | LINE | MARK |
|---|---|---|---|---|---|---|---|
| 5500.00 | 6517.85 | 53687.144 | -327.006 | 10:15:33.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6535.71 | 53690.246 | -323.953 | 10:15:28.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6553.57 | 53689.961 | -324.239 | 10:15:23.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6571.42 | 53680.025 | -334.183 | 10:15:18.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6589.28 | 53665.662 | -348.564 | 10:15:13.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6607.14 | 53654.175 | -360.078 | 10:15:08.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6625.00 | 53689.818 | -324.470 | 10:15:03.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6642.85 | 53677.742 | -336.587 | 10:14:58.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6660.71 | 53679.515 | -334.859 | 10:14:53.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6678.57 | 53685.762 | -328.661 | 10:14:48.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6696.42 | 53685.115 | -329.357 | 10:14:43.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6714.28 | 53689.962 | -324.558 | 10:14:38.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6732.14 | 53697.677 | -316.889 | 10:14:33.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6750.00 | 53696.051 | -318.557 | 10:14:28.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6767.85 | 53701.371 | -313.275 | 10:14:23.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6785.71 | 53701.312 | -313.367 | 10:14:18.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6803.57 | 53710.970 | -303.737 | 10:14:13.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6821.42 | 53703.803 | -310.927 | 10:14:08.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6839.28 | 53705.949 | -308.799 | 10:14:03.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6857.14 | 53706.480 | -308.283 | 10:13:58.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6875.00 | 53702.209 | -312.565 | 10:13:53.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6892.85 | 53703.024 | -311.758 | 10:13:48.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6910.71 | 53705.979 | -308.809 | 10:13:43.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6928.57 | 53705.895 | -308.897 | 10:13:38.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6946.42 | 53701.830 | -312.965 | 10:13:33.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6964.28 | 53683.234 | -331.563 | 10:13:28.00 | 06/09/99 | 22 | 0 |
| 5500.00 | 6982.14 | 53650.995 | -363.803 | 10:13:23.00 | 06/09/99 | 22 | 0 |
| 5027.89 | 6910.07 | 53643.888 | -370.911 | 10:12:17.30 | 06/09/99 | 21 | 0 |
| 5027.89 | 6891.43 | 53678.457 | -336.343 | 10:12:12.30 | 06/09/99 | 21 | 0 |
| 5027.90 | 6872.79 | 53695.731 | -319.069 | 10:12:07.30 | 06/09/99 | 21 | 0 |
| 5027.90 | 6854.15 | 53704.076 | -310.724 | 10:12:02.30 | 06/09/99 | 21 | 0 |
| 5027.91 | 6835.51 | 53700.371 | -314.429 | 10:11:57.30 | 06/09/99 | 21 | 0 |
| 5027.91 | 6816.87 | 53705.020 | -309.780 | 10:11:52.30 | 06/09/99 | 21 | 0 |
| 5027.92 | 6798.23 | 53707.460 | -307.340 | 10:11:47.30 | 06/09/99 | 21 | 0 |
| 5027.92 | 6779.59 | 53702.319 | -312.481 | 10:11:42.30 | 06/09/99 | 21 | 0 |
| 5027.93 | 6760.95 | 53698.540 | -316.260 | 10:11:37.30 | 06/09/99 | 21 | 0 |
| 5027.93 | 6742.31 | 53695.463 | -319.337 | 10:11:32.30 | 06/09/99 | 21 | 0 |
| 5027.94 | 6723.67 | 53696.673 | -318.127 | 10:11:27.30 | 06/09/99 | 21 | 0 |
| 5027.94 | 6705.04 | 53693.555 | -321.245 | 10:11:22.30 | 06/09/99 | 21 | 0 |
| 5027.95 | 6686.40 | 53690.496 | -324.304 | 10:11:17.30 | 06/09/99 | 21 | 0 |
| 5027.95 | 6667.76 | 53689.303 | -325.497 | 10:11:12.30 | 06/09/99 | 21 | 0 |
| 5027.96 | 6649.12 | 53685.225 | -329.575 | 10:11:07.30 | 06/09/99 | 21 | 0 |
| 5027.96 | 6630.48 | 53680.745 | -334.055 | 10:11:02.30 | 06/09/99 | 21 | 0 |
| 5027.97 | 6611.84 | 53680.109 | -334.691 | 10:10:57.30 | 06/09/99 | 21 | 0 |
| 5027.97 | 6593.20 | 53670.214 | -344.586 | 10:10:52.30 | 06/09/99 | 21 | 0 |
| 5027.98 | 6574.56 | 53667.017 | -347.783 | 10:10:47.30 | 06/09/99 | 21 | 0 |
| 5027.98 | 6555.92 | 53652.452 | -362.348 | 10:10:42.30 | 06/09/99 | 21 | 0 |
| 5027.99 | 6537.28 | 53646.703 | -368.097 | 10:10:37.30 | 06/09/99 | 21 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5027.99 | 6518.64 | 53656.660 | -358.140 | 10:10:32.30 | 06/09/99 | 21 | 0 |
| 5028.81 | 6481.49 | 53645.778 | -369.119 | 10:09:54.20 | 06/09/99 | 20 | 0 |
| 5029.62 | 6462.97 | 53542.530 | -472.470 | 10:09:49.20 | 06/09/99 | 20 | 0 |
| 5030.44 | 6444.45 | 53710.050 | -305.055 | 10:09:44.20 | 06/09/99 | 20 | 0 |
| 5031.25 | 6425.93 | 53709.220 | -305.988 | 10:09:39.20 | 06/09/99 | 20 | 0 |
| 5032.07 | 6407.41 | 53706.861 | -308.445 | 10:09:34.20 | 06/09/99 | 20 | 0 |
| 5032.88 | 6388.89 | 53711.793 | -303.602 | 10:09:29.20 | 06/09/99 | 20 | 0 |
| 5033.70 | 6370.38 | 53738.030 | -277.446 | 10:09:24.20 | 06/09/99 | 20 | 0 |
| 5034.51 | 6351.86 | 53714.904 | -300.642 | 10:09:19.20 | 06/09/99 | 20 | 0 |
| 5035.33 | 6333.34 | 53762.071 | -253.534 | 10:09:14.20 | 06/09/99 | 20 | 0 |
| 5036.14 | 6314.82 | 53695.449 | -320.204 | 10:09:09.20 | 06/09/99 | 20 | 0 |
| 5036.96 | 6296.30 | 52614.221 | -1401.471 | 10:09:04.20 | 06/09/99 | 20 | 0 |
| 5037.77 | 6277.78 | 53562.485 | -453.238 | 10:08:59.20 | 06/09/99 | 20 | 0 |
| 5038.59 | 6259.26 | 53676.957 | -338.789 | 10:08:54.20 | 06/09/99 | 20 | 0 |
| 5039.40 | 6240.75 | 53702.101 | -313.662 | 10:08:49.20 | 06/09/99 | 20 | 0 |
| 5040.22 | 6222.23 | 53702.060 | -313.715 | 10:08:44.20 | 06/09/99 | 20 | 0 |
| 5041.03 | 6203.71 | 53702.399 | -313.385 | 10:08:39.20 | 06/09/99 | 20 | 0 |
| 5041.85 | 6185.19 | 53706.858 | -308.932 | 10:08:34.20 | 06/09/99 | 20 | 0 |
| 5042.66 | 6166.67 | 53705.891 | -309.903 | 10:08:29.20 | 06/09/99 | 20 | 0 |
| 5043.48 | 6148.15 | 53703.988 | -311.808 | 10:08:24.20 | 06/09/99 | 20 | 0 |
| 5044.29 | 6129.63 | 53705.714 | -310.084 | 10:08:19.20 | 06/09/99 | 20 | 0 |
| 5045.11 | 6111.12 | 53707.780 | -308.019 | 10:08:14.20 | 06/09/99 | 20 | 0 |
| 5045.92 | 6092.60 | 53703.005 | -312.794 | 10:08:09.20 | 06/09/99 | 20 | 0 |
| 5046.74 | 6074.08 | 53700.642 | -315.158 | 10:08:04.20 | 06/09/99 | 20 | 0 |
| 5047.55 | 6055.56 | 53689.173 | -326.627 | 10:07:59.20 | 06/09/99 | 20 | 0 |
| 5048.37 | 6037.04 | 53788.137 | -227.663 | 10:07:54.20 | 06/09/99 | 20 | 0 |
| 5049.18 | 6018.52 | 53710.530 | -305.270 | 10:07:49.20 | 06/09/99 | 20 | 0 |
| 5240.65 | 5516.12 | 53717.111 | -298.792 | 10:04:33.70 | 06/09/99 | 19 | 0 |
| 5234.30 | 5532.25 | 53451.262 | -564.733 | 10:04:28.70 | 06/09/99 | 19 | 0 |
| 5227.94 | 5548.38 | 53714.362 | -301.715 | 10:04:23.70 | 06/09/99 | 19 | 0 |
| 5221.59 | 5564.51 | 53718.625 | -297.521 | 10:04:18.70 | 06/09/99 | 19 | 0 |
| 5215.23 | 5580.64 | 53719.140 | -297.065 | 10:04:13.70 | 06/09/99 | 19 | 0 |
| 5208.88 | 5596.77 | 53709.110 | -307.142 | 10:04:08.70 | 06/09/99 | 19 | 0 |
| 5202.52 | 5612.90 | 53709.912 | -306.383 | 10:03:50.80 | 06/09/99 | 19 | 0 |
| 5196.17 | 5629.03 | 53556.907 | -459.419 | 10:03:45.80 | 06/09/99 | 19 | 0 |
| 5189.81 | 5645.16 | 53724.620 | -291.728 | 10:03:40.80 | 06/09/99 | 19 | 0 |
| 5183.46 | 5661.29 | 53742.479 | -273.884 | 10:03:35.80 | 06/09/99 | 19 | 0 |
| 5177.10 | 5677.41 | 53708.731 | -307.642 | 10:03:30.80 | 06/09/99 | 19 | 0 |
| 5170.75 | 5693.54 | 53725.877 | -290.502 | 10:03:25.80 | 06/09/99 | 19 | 0 |
| 5164.39 | 5709.67 | 53727.409 | -288.974 | 10:03:20.80 | 06/09/99 | 19 | 0 |
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| 6845.73 | 5500.00 | 53023.798 | -679.577 | 08:40:39.40 | 06/09/99 | 12 | 0 |
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| 5936.46 | 5500.00 | 53703.633 | 0.409 | 08:36:29.40 | 06/09/99 | 12 | 0 |
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|---|---|---|---|---|---|---|---|
| 5034.49 | 5500.00 | 53733.295 | 30.493 | 08:30:30.70 | 06/09/99 | 11 | 0 |
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| 5302.52 | 5042.44 | 53734.511 | 31.931 | 08:23:37.20 | 06/09/99 | 9 | 0 |
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| 5336.13 | 5041.60 | 53720.799 | 18.238 | 08:23:27.20 | 06/09/99 | 9 | 0 |
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| 5369.74 | 5040.76 | 53734.556 | 32.014 | 08:23:17.20 | 06/09/99 | 9 | 0 |
| 5386.55 | 5040.34 | 53735.832 | 33.298 | 08:23:12.20 | 06/09/99 | 9 | 0 |
| 5403.36 | 5039.92 | 53737.858 | 35.333 | 08:23:07.20 | 06/09/99 | 9 | 0 |
| 5420.16 | 5039.50 | 53739.876 | 37.360 | 08:23:02.20 | 06/09/99 | 9 | 0 |
| 5436.97 | 5039.08 | 53738.577 | 36.069 | 08:22:57.20 | 06/09/99 | 9 | 0 |
| 5453.78 | 5038.66 | 53739.705 | 37.205 | 08:22:52.20 | 06/09/99 | 9 | 0 |
| 5470.58 | 5038.24 | 53738.423 | 35.931 | 08:22:47.20 | 06/09/99 | 9 | 0 |
| 5487.39 | 5037.82 | 53744.011 | 41.527 | 08:22:42.20 | 06/09/99 | 9 | 0 |
| 5504.20 | 5037.40 | 53734.584 | 32.108 | 08:22:37.20 | 06/09/99 | 9 | 0 |
| 5521.00 | 5036.98 | 53724.221 | 21.752 | 08:22:32.20 | 06/09/99 | 9 | 0 |
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| 5823.52 | 5029.42 | 53730.074 | 27.714 | 08:21:02.20 | 06/09/99 | 9 | 0 |
| 5840.33 | 5029.00 | 53726.750 | 24.395 | 08:20:57.20 | 06/09/99 | 9 | 0 |
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| 5924.36 | 5026.90 | 53673.882 | -28.452 | 08:20:32.20 | 06/09/99 | 9 | 0 |
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| 6058.82 | 5023.53 | 53716.432 | 14.128 | 08:19:29.20 | 06/09/99 | 9 | 0 |
| 6075.63 | 5023.11 | 53716.002 | 13.702 | 08:19:24.20 | 06/09/99 | 9 | 0 |
| 6092.43 | 5022.69 | 53713.690 | 11.393 | 08:19:19.20 | 06/09/99 | 9 | 0 |
| 6109.24 | 5022.27 | 53712.569 | 10.275 | 08:19:14.20 | 06/09/99 | 9 | 0 |
| 6126.05 | 5021.85 | 53711.059 | 8.768 | 08:19:09.20 | 06/09/99 | 9 | 0 |
| 6142.85 | 5021.43 | 53716.405 | 14.117 | 08:19:04.20 | 06/09/99 | 9 | 0 |
| 6159.66 | 5021.01 | 54034.914 | 332.629 | 08:18:59.20 | 06/09/99 | 9 | 0 |
| 6176.47 | 5020.59 | 53688.230 | -14.052 | 08:18:54.20 | 06/09/99 | 9 | 0 |
| 6193.27 | 5020.17 | 53691.848 | -10.432 | 08:18:49.20 | 06/09/99 | 9 | 0 |
| 6210.08 | 5019.75 | 53704.030 | 1.753 | 08:18:44.20 | 06/09/99 | 9 | 0 |
| 6226.89 | 5019.33 | 53696.498 | -5.777 | 08:18:39.20 | 06/09/99 | 9 | 0 |
| 6243.69 | 5018.91 | 53536.751 | -165.520 | 08:07:40.10 | 06/09/99 | 9 | 0 |
| 6260.50 | 5018.49 | " | " " | " | 08:07:35.10 | 06/09/99 | 9 | 0 |
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| 6310.92 | 5017.23 | " | " " | " | 08:07:20.10 | 06/09/99 | 9 | 0 |
| 6327.73 | 5016.81 | " | " " | " | 08:07:15.10 | 06/09/99 | 9 | 0 |
| 6344.53 | 5016.39 | " | " " | " | 08:07:10.10 | 06/09/99 | 9 | 0 |
| 6361.34 | 5015.97 | 53727.901 | 25.652 | 08:07:05.10 | 06/09/99 | 9 | 0 |
| 6378.15 | 5015.55 | 53726.295 | 24.048 | 08:07:00.10 | 06/09/99 | 9 | 0 |
| 6394.95 | 5015.13 | 53718.396 | 16.152 | 08:06:55.10 | 06/09/99 | 9 | 0 |
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| 5854.35 | 6500.00 | 53425.007 | -274.506 | 20:32:35.10 | 06/08/99 | 5 | 0 |
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| 7465.07 | 6500.00 | 53696.374 | -8.293 | 20:13:46.80 | 06/08/99 | 5 | 0 |
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| 6716.99 | 7000.00 | 53691.202 | -15.298 | 20:00:56.50 | 06/08/99 | 3 | 0 |
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| 6609.61 | 7000.00 | 53693.467 | -13.033 | 20:00:26.50 | 06/08/99 | 3 | 0 |
| 6573.81 | 7000.00 | 53698.546 | -7.954 | 20:00:16.50 | 06/08/99 | 3 | 0 |
| 6538.02 | 7000.00 | 53699.212 | -7.288 | 20:00:06.50 | 06/08/99 | 3 | 0 |
| 6502.23 | 7000.00 | 53696.151 | -10.373 | 19:59:56.50 | 06/08/99 | 3 | 0 |
| 6466.43 | 7000.00 | 53699.522 | -7.118 | 19:59:46.50 | 06/08/99 | 3 | 0 |
| 6430.64 | 7000.00 | 53700.511 | -6.331 | 19:59:36.50 | 06/08/99 | 3 | 0 |
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| 6359.05 | 7000.00 | 53706.518 | -0.913 | 19:59:16.50 | 06/08/99 | 3 | 0 |
| 6323.26 | 7000.00 | 53707.499 | -0.272 | 19:59:06.50 | 06/08/99 | 3 | 0 |
| 6287.47 | 7000.00 | 53716.359 | 8.249 | 19:58:56.50 | 06/08/99 | 3 | 0 |

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| 6251.67 | 7000.00 | 53675.394 | -33.032 | 19:58:46.50 | 06/08/99 | 3 | 0 |
| 6215.88 | 7000.00 | 53642.235 | -66.469 | 19:58:36.50 | 06/08/99 | 3 | 0 |
| 6180.08 | 7000.00 | 53744.119 | 35.184 | 19:58:26.50 | 06/08/99 | 3 | 0 |
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| 6001.12 | 7000.00 | 53700.237 | -9.214 | 19:57:36.50 | 06/08/99 | 3 | 0 |
| 5965.32 | 7000.00 | 53706.884 | -2.590 | 19:57:26.50 | 06/08/99 | 3 | 0 |
| 5929.53 | 7000.00 | 53710.162 | 0.675 | 19:57:16.50 | 06/08/99 | 3 | 0 |
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| 5534.69 | 7500.00 | 53718.627 | 14.127 | 19:47:58.60 | 06/08/99 | 1 | 0 |
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| 6367.30 | 7500.00 | 53703.477 | -1.023 | 19:43:58.60 | 06/08/99 | 1 | 0 |
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| 6506.07 | 7500.00 | 53699.121 | -5.379 | 19:43:18.60 | 06/08/99 | 1 | 0 |

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| 6540.76 | 7500.00 | 53697.168 | -7.332 | 19:43:08.60 | 06/08/99 | 1 | 0 |
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| 5790.96 | 7637.25 | 53660.645 | -43.855 | 19:32:28.90 | 06/08/99 | 0 | 0 |
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| 6009.19 | 7637.45 | 53671.623 | -32.877 | 19:31:28.90 | 06/08/99 | 0 | 0 |
| 6045.56 | 7637.48 | 53674.170 | -30.330 | 19:31:18.90 | 06/08/99 | 0 | 0 |

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| 6081.93 | 7637.51 | 53675.920 | -28.580 | 19:31:08.90 | 06/08/99 | 0 | 0 |
| 6118.30 | 7637.54 | 53675.078 | -29.422 | 19:30:58.90 | 06/08/99 | 0 | 0 |
| 6154.67 | 7637.58 | 53674.808 | -29.692 | 19:30:48.90 | 06/08/99 | 0 | 0 |
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| 6227.41 | 7637.64 | 53677.687 | -26.813 | 19:30:28.90 | 06/08/99 | 0 | 0 |
| 6263.79 | 7637.67 | 53676.590 | -27.910 | 19:30:18.90 | 06/08/99 | 0 | 0 |
| 6300.16 | 7637.70 | 53678.135 | -26.365 | 19:30:08.90 | 06/08/99 | 0 | 0 |
| 6336.53 | 7637.74 | 53679.750 | -24.750 | 19:29:58.90 | 06/08/99 | 0 | 0 |
| 6372.90 | 7637.77 | 53730.453 | 25.953 | 19:29:48.90 | 06/08/99 | 0 | 0 |
| 6409.27 | 7637.80 | 53736.854 | 32.354 | 19:29:38.90 | 06/08/99 | 0 | 0 |
| 6445.64 | 7637.83 | 53679.396 | -25.104 | 19:29:28.90 | 06/08/99 | 0 | 0 |
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| 6518.38 | 7637.90 | 53685.606 | -18.894 | 19:29:08.90 | 06/08/99 | 0 | 0 |
| 6554.75 | 7637.93 | 53684.619 | -19.881 | 19:28:58.90 | 06/08/99 | 0 | 0 |
| 6591.12 | 7637.96 | 53687.633 | -16.867 | 19:28:48.90 | 06/08/99 | 0 | 0 |
| 6627.50 | 7638.00 | 53687.197 | -17.303 | 19:28:38.90 | 06/08/99 | 0 | 0 |
| 6663.87 | 7638.03 | 53687.914 | -16.586 | 19:28:28.90 | 06/08/99 | 0 | 0 |
| 6700.24 | 7638.06 | 53692.913 | -11.587 | 19:28:18.90 | 06/08/99 | 0 | 0 |
| 6736.61 | 7638.09 | 53689.370 | -15.130 | 19:28:08.90 | 06/08/99 | 0 | 0 |
| 6772.98 | 7638.12 | 53694.346 | -10.154 | 19:27:58.90 | 06/08/99 | 0 | 0 |
| 6809.35 | 7638.16 | 51842.427 | -1862.073 | 19:27:48.90 | 06/08/99 | 0 | 0 |
| 6845.72 | 7638.19 | 53691.955 | -12.545 | 19:27:38.90 | 06/08/99 | 0 | 0 |
| 6882.09 | 7638.22 | 53690.787 | -13.713 | 19:27:28.90 | 06/08/99 | 0 | 0 |
| 6918.46 | 7638.25 | 53696.687 | -7.813 | 19:27:18.90 | 06/08/99 | 0 | 0 |
| 6954.83 | 7638.29 | 53694.561 | -9.939 | 19:27:08.90 | 06/08/99 | 0 | 0 |
| 6991.20 | 7638.32 | 53696.377 | -8.123 | 19:26:58.90 | 06/08/99 | 0 | 0 |
| 7027.58 | 7638.35 | 53698.592 | -5.908 | 19:26:48.90 | 06/08/99 | 0 | 0 |
| 7063.95 | 7638.38 | 53697.650 | -6.850 | 19:26:38.90 | 06/08/99 | 0 | 0 |
| 7100.32 | 7638.41 | 53707.820 | 3.320 | 19:26:28.90 | 06/08/99 | 0 | 0 |
| 7136.69 | 7638.45 | 53701.223 | -3.277 | 19:26:18.90 | 06/08/99 | 0 | 0 |
| 7173.06 | 7638.48 | 53704.476 | -0.024 | 19:26:08.90 | 06/08/99 | 0 | 0 |
| 7209.43 | 7638.51 | 53704.667 | 0.167 | 19:25:58.90 | 06/08/99 | 0 | 0 |
| 7245.80 | 7638.54 | 53701.839 | -2.661 | 19:25:48.90 | 06/08/99 | 0 | 0 |
| 7282.17 | 7638.58 | 53704.800 | 0.300 | 19:25:38.90 | 06/08/99 | 0 | 0 |
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| 7354.91 | 7638.64 | 53698.232 | -6.268 | 19:25:18.90 | 06/08/99 | 0 | 0 |
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BEGIN BASE STATION FILE
99 2

| | | | | | |
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| 0 | 54008.000 | 0.000 | 11:20:09.00 | 06/09/99 | 0 |
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| 0 | 53996.900 | 0.000 | 11:00:23.00 | 06/09/99 | 0 |
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| 0 | 54009.900 | 0.000 | 08:55:25.00 | 06/09/99 | 0 |
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| 0 | 53704.300 | 0.000 | 20:49:36.00 | 06/08/99 | 0 |
| 0 | 53705.400 | 0.000 | 20:44:37.00 | 06/08/99 | 0 |
| 0 | 53707.100 | 0.000 | 20:39:41.00 | 06/08/99 | 0 |
| 0 | 53702.000 | 0.000 | 20:34:41.00 | 06/08/99 | 0 |
| 0 | 53699.416 | 0.000 | 20:29:38.00 | 06/08/99 | 0 |
| 0 | 53700.700 | 0.000 | 20:24:38.00 | 06/08/99 | 0 |
| 0 | 53705.500 | 0.000 | 20:19:41.00 | 06/08/99 | 0 |
| 0 | 53704.800 | 0.000 | 20:14:39.00 | 06/08/99 | 0 |
| 0 | 53704.500 | 0.000 | 20:09:40.00 | 06/08/99 | 0 |
| 0 | 53707.500 | 0.000 | 20:04:45.00 | 06/08/99 | 0 |
| 0 | 53706.500 | 0.000 | 19:59:59.00 | 06/08/99 | 0 |
| 0 | 53709.500 | 0.000 | 19:54:40.00 | 06/08/99 | 0 |
| 0 | 53704.500 | 0.000 | 19:49:35.00 | 06/08/99 | 0 |
| 0 | 53704.500 | 0.000 | 19:22:54.00 | 06/08/99 | 0 |