LEGEND —— TENNESSEE DIAMOND DRILL LOGS

A —— Grade "A" — 1-5% Zn, Pb
Abu — Abundant
Ae — Augen
Alt — Altered
Ang — Angle, Angular
App — Apparent
Apr — Approaching
Argil - Argillaceous
Att — Attitude
Av — Average

B —— Grade "B" 5-10% Zn, Pb
Bd — Bed, Bedding, Bedded
Bear — Bearing
Bkn — Broken
Bl — Black
Blu — Blue
Bn — Band-ed
Bot — Bottom
Br — Breccia
Brm — Mosaic Breccia
Brn — Brown
Bro — Rosette Breccia
Brr — Rubble Breccia
Bt — Barite
Btwn — Between
Bu — Buff
Ble — Bleached-ing

C —— Grade "C" — 10% & Up Zn, Pb
Є —— Cambrian
Єcr — Copper Ridge Dolomite
Єm — Maryville Ls
Єn — Nolichucky Shale
Єnmdl - Maynardville Dolomite
Єnmls - Maynardville Ls
Єr — Rome Shale
Єrg — Rogersville Shale
Єrgc — Craig Ls Member
Єrt — Rutledge Ls
Єs — Shady Dolomite
Ca — Calcite

Ce — Chert
Cem — Cemented
Cer — Cerussite
Calc — Calcareous
Cg — Conglomerate
Ch — Chalcopyrite
Chalced Chalcedony
Cm — Calamine
Comp — Composite
Conc — Concretion
Concr - Concentrated
Condn - Condition
Cons — Considerable-y
Cont — Controted
Cr — Cream-y
Crs — Coarse
Cru — Crushed
Crypt - Cryptozoon
Ct — Contact
Curv — Curved

D & Dk- Dark-Prefix to color
Decalc- Decalcified
Dis — Disseminated
Disc — Discontinuous
Displ - Displacement
Dist — Distance
Dl-z — Dolomite-zed
Dlic — Dolomitic
Dlztion - Dolomitization
Dn — Dense
Dol — Dolomite (Mineral)

Ed — Edgewise
Eff — Effervescence
Ellip - Ellipsoidal

Fa-ng - Fault-ing
Fi — Fine
Fl — Fluorite
Fm — Formation
Fn — Faint
Fos — Fossil-iferous
Fr-d-ng - Fracture-ed-ing
Frag — Fragment

Fret — Fretwork
Fuz — Fuzzy Metamorphism
FW — Footwall

G — Ground
Ga — Galena
Gd — Gradational
Gg — Gouge
Gm — Groundmass
Gos — Gossan
Gran — Granular, Granule
Grn, Grnsh - Green-ish
Gy — Grey

Horiz — Horizon
He — Hematite
Hily — Highly
Hvy — Heavy
HW — Hanging Wall

I & Inter - Interbedded
Inclin — Inclination
Incip — Incipient
Irreg — Irregular

K — Kaolin
KKnFa — Koppick Knob Fault

L — Light
Le — Leached
Lg-er — Large-r
Lim-ic — Limonite-ic
Lo — Local-ly
Ls — Limestone

M — Medium
Mal — Malachite
Mash — Mashed
Mass — Massive
Md — Moderate
MF — Mud Flakes
Min — Mineralized (0-1% Zn, Pb)
Mkr — Marker
Mot — Mottled

Mt — Metamorphism, Metamorphosed
Mtx — Matrix
Mylon - Mylonite

Nil — None
Nod — Nodule-ar
Nu — Numerous

Oc — Occasional
Oo — Oolite-ic
Or — Orange
Oxid — Oxidized-ation

Pk — Pink
P — Pseudo
Pb, Peb- Pebble
Piso — Pisolite-ic
Por — Porphyritic
PSg — Pseudo Sand Grain
Pt — Parting
Py-ic - Pyrite-ic

Q — Quartz
Qt, Qtzt - Quartzite

Rd — Red
R-y — Ribbon-y
Ra — Rare
RC — Red Clay
Reg — Regular
Rem — Remnant
Repl — Replacement
Rk — Rock
Rnd — Round

S — Siliceous
Sach — Saccharodial
San — Sandy
Sc — Scattered
Sch — Schard
Sec — Secondary
Sed — Sediment-ary
Sg — Sand Grain
Sh-y — Shale-y
Shat-ng - Shattered-ing
She — Shear
Shl — Shale

Si — Silica
Sk — Speckled
Sl — Slight
Sm — Smithsonite
Sml — Small
Sp — Sphalerite
Ss — Sandstone
St — Strong
Stn — Stain
Stp — Steep
Strat - Straticulate
Sty-ic- Stylolite-ic
Sug — Suggestive
Sul — Sulphide

TB — Thin-bedded
Tk-ns - Thick-ness
Tn — Thin
Tp — Top
Tr — Trace
Trans - Transitional
Text — Texture

Vn — Vein
Var — Varied-ious-iable
Vnl — Veinlet
Vug — Vuggy, Vug
Vy — Very

Wd — Width, Wide
WB — Well-bedded
We — Weathered
Wh — White
Wk — Weak

Xl — Crystal
Xln — Crystalline

Yel — Yellow

Zn — Zinc
Zo — Zone

Oc — Chepultepec
Ol — Lenoir
Olv — Longview
Ok — Kingsport
Om — Mosheim
Oma — Mascot

AX-Tenn B 358

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY New Jersey Zinc Co

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn

Sec C-1263

HOLE NO. BW-24

STARTED 3-7-57 BOTTOMED 3-18-57 LOG BY RCG
SHED NO. DISCARDED

ELEVATION ~~[illegible]~~ 1662.82'
COORDS. ~~[illegible]~~ N ~~[illegible]~~ E
BRG. 60,650.82 INCL. 28,777.91 Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	50					RC	BX-AX 61				
50	357	307	253		CeMtx? 163 Brn Oo? 226 U255? 256 LP336	DI	Num Sgs 55 Sc Vert Frng 73-90 Cot Rt 123-124 CeMtx Ss 163 Nu Sgs 208 Ra Sgs 214 Brn Irreg Ce 226 Very Poor Recov 240-271 Sgs 271, 275, 278 Si DI 278-280 Sgs 286 Ce, Si DI, Frng 293-297 Sc Frng, Mylon 309-320 Sgs 336, 346				
357	490	130	97		TR 357 E? 393	DI	Sgs 361-362, 363 Vst Fa Zo Abu Mylon 420-463 St Fa Zo 470-473 Sgs 474 Pk Calc 473 Fa 486	Sh: Py 431-436			
490	504	14	12			LS					
504	511	7	7		Tbed	DI					
511	515	4	4			LS	Fa 511				
	515	Bottom									

R & S Bds 90% Dolomite

Elev. TR 1306'

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY New Jersey Zinc Co.

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn

Sec C-1263 HOLE NO. BW-25

STARTED 3-19-57 BOTTOMED 3-27-57 LOG BY RCG
SHED NO. _____ DISCARDED _____

ELEVATION ~~[illegible]~~' 1639.91
COORDS. ~~[illegible] N~~ ~~[illegible] E~~
BRG. 60,816.64 N INCL. 28,666.06 E

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	21					RC	NX-BX 25 BX-AX 30				
21	178	153	133			DI	Sgs 27, 34 Sc Sh Sed Br 25-36 Ftng 65 Sc Sgs 93-95 Hi Ang Fa 97 Sgs 109, 112 Ce Pb Cg Sgs 119-120 open 120-136 Sc Rddsh DI 163-178				
178	247	69	67		TR178 A 180 B184	DI Fi-MXln	Rd + Grn Sh Sed Br 178-18 Sgs 180, 183 Brn Sh Sed Br 205-206 Grn Sh 207 Ce, Sc Sed Br 212 Rd Sh 220-221 Sc Rd DI 221-240 Fid Ce 245-247				
247	308	55	51			Ls	Rd Sh 254 Ce Sed Br 271 DI 281-283				
308	319	11	11		Tbed	DI	Fi-FiXln Ce Nods				
319	321	2	2		O 321	Ls	Pb Cg 321				
321	327	6	4			DI	MXln Ce Nods				
327	335	8	8			Ls	Abu Sgs 333-335				
	335	Bottom									

R & S Bds 58 % Dolomite
Elev. TR 1462'

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Mrs. Annis Helton

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn

Sec-C1263

HOLE NO. BW-26

STARTED 3-28-57 BOTTOMED 4-12-57 LOG BY RCG

SHED NO. DISCARDED

ELEVATION 1680.21
COORDS. 60,485.23 N 28,887.44
BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	64					RC					
64	566	502	418	Oma-Ok		DI	Bu Sgs 65 Sgs 104, 108 We, Core in small pieces 64-110 Ce Pb Cg 134 Num Sgs 146 Abu Sgs/Gru Sh 157 Ce Mtx SS 175 Sed Br, Abu Sgs 183-187 Sgs, Cot Rk Cg 196 St Fa 213 Open 221-226 We 228 Sgs in Ce 255 Pb Cg 257 Sgs 267 Ce Mtx ss 283 Frag 315-330 Open 316-317 Sgs 333 Frag 344, 352 Oo(?) Ce 375 Sgs, Wk Strat 399 Frag 415-418 Abu Sgs 418 Sc Sgs 445 Ce, Oo 458 Sc Sgs, Dist Strat 458-460 Cot Rk Br, Fi Bu DI 467 Sgs 481 Ribbony Ce & Sh 485-487 80° Fa 490 Sgs 501 Sed Br 502 Ribbony Ce & Sh 505 Sed Br 505 Sgs 515 Dol Frs 525-553	U255 460	Tr Py in Dol Fr 530 Tr Py 553				
566	641	77	77	OK	TR566 B574	DI	Fi-MXln Fi Bu DI 574 Sed Br 566-574 Rd & Gru Sh Sed Br 583-595 Sed Br 609-614, 617-619 Sc Sed Br 624-641	Shi Py in Gru Sh 636			
641	691	50	40			Ls	Pb Cg 664 Sgs 670 DI, Ce Nods 683-685				
691	696	5	4			DI					
696	708	12	8			Idl/Ls	M-Cus Xln DI w Ls Frags & Bds				
708	725	17	17	Olv	Tbed? 708-714	DI	Fi-MXln, Abu Ce 716-725				
	725	Bottom									

R&S Bds 61% DI.
Elev. TR 1114'

LOCATION: Copper Ridge Belt
Sector II
Area D
PROPERTY: Mrs. Annis Helton

THE NEW JERSEY ZINC CO.

Sec. C-1263

Jefferson City, Tenn.

STARTED 4-12-57 BOTTOMED 5-2-57 LOG BY RCG, REF
SHED NO. B-6 DISCARDED O-558

HOLE NO. BW-27
ELEVATION 1674.27
COORDS. 60,316.61 N 28,996.66 E
BRG. INCL. V.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	83					RC	BX-AX90				
83	588	505	435	Oma		DI	Sgs 103 Frng, Fa 141, 157, 176 Sc Rddsh 206-228 Intense Red 218-226 Frng 251 Sgs 284 Sgs, Cc Br 306 Sc Sgs, Cot Rk Chips 320-321 Sgs, Sed Br 327-328 Rd & Grn Sh 331-332 St Frng 341 Sc-Abu Bu Sgs, Lo Cc Mtx 353-358 Oo Cc Sed Br 357 Sc Sed Br, Cot Rk, Si DI 363-373 Sc-Abu Sgs 368-370 Cot Rk Chips, Oo? 409-410 Sc Sgs 439-440 Cc Sed Br, Sc Sgs 445-447 Bu DI, Cc Pb Cg 451-452 Cot Rk 457-463 Sc Sgs 468-481, 484 Num Sgs 507 Sc Sgs, Irreg Cot Rk 511-513½" Cc Mtx ss/Abu Sgs, Cc Pb Cg 535-536 Dk DI, Sly ptugs 576-586 Brn Strat/Cc Mtx ss 588				
					Sgs, Pb Cg 536						
588	779	191	144	OK	Cc Mtx	DI	Sgs 589, 607, 631, 634, 635 Blc 635-637 Cc Mtx ss 642 Sgs 656 Blc 656-671 Sgs Dist strat 666-668 Cc Pb Cg 677 Bu Sgs/Sg fld Br/Sgs in Cc 690-692 Cc, Cot Rk 711-712 Ra Sgs 721 Dk Rd DI 757-760 Sc Rd DI 770-779				
				41°626	588						
				41° 705	U 255						
					668						
779	867	88	83		TR 779 E 830	DI	Fi-Crs Xln Sc Rd & Grn Sh & Sed Br 779-815 Cc 830-831 Ls 831-832 Sed Br 849-855	Shis Sp in Dol Frs 842-893, 846			
867	935	68	66			Ls	DI 906-908 Oo Cc 917 Sed Br 906				
935	946	11	11		Tbed 935-	DI	Fi w Sc Cc Nods Sc Crs Sgs 945				
946	949	3	3			Ls					
949	950	1	1			DI	Fi Gr				
	950	Bottom									

R & S Bds. 56% DI.
Elev. TR 895'

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Mrs. Annis Helton

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn.

Sec. C-1263

STARTED 5-3-57 BOTTOMED 5-29-57 LOG BY REF, RCG
SHED NO. B-6 DISCARDED none

HOLE NO. BW-28
ELEVATION 1690.77'
COORDS. 60,150.93 N 29,093.47 E
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	23					RC	NX-AX 30				
23	791	768	738	Oma		Dl	Sed Br 31, 38 Open 58-65 Mylon? 71-72 Sc Rd Mot 77-157 Grn Sh 91 Sc Blebs Grn Sh 125-127 Sc Sgs 162 Sc Ce Nods 163-169 (Lo Ce Br) Ce Nod 216 Ce Pb Zn 217 Sc Crs Sgs 242-243 Sc Abu Sgs 274-275 3" Strat Dl / Sgs in Ce Mtx 301 Sc Sgs 319 2" Bdg Fa 357 Sc Sgs 359, 374, 381 Ce Br, Bdd Ce 427-431 Sc Sgs 443-447 Ce Nod 453, 455, 458 Bre & Nod Ce 482-483 Abu Sc-Bn Sgs 485-486 Sc Sgs 488 Abu Sc-Bn Sgs 492-493 Ce Nod 500 Abu Sgs 512 Abu Bn Sgs 519, 527, 528 Sc Sgs in Br 535-536 Sc Sgs / Br & Grn Sh 540 Bn Sgs / 1' Silic Dl 545-546 Crs Dl Sed Br 548-549 Sc-Bn Sgs in Dl & Ce 562-564 Oo Ce 564 Brn Mot Dl 570-572 Sc Sgs, Ce chips 572 Bu Strat Dl w Ce Br Zos 573-576 Sc Abu Sgs in Silic Dl, Oo Ce 576-580 Sc Sgs 588-590 Wk Fa 601 Frag 606-607 Sc-Bn Sgs w Ce chips 617-619 2" Abu Sgs w Dl Pbs 622 Bu Strat Dl w Sc-Bn Sgs, 1" Grn Sh 631-633 Abu Ac 641-649 Bn Crs Sgs 646-647 Sc Sgs 649 Blu Nod Ce 655-656 L Bn Fi Dl 655-658 Wiggly Ce 665 Cot Rk Br 666-668 Sgs 671 Sc Sgs 714-716 Sc-Bn Sgs 736-738 Abu Sgs, Ce, Cg 738-740 Sc Sgs 756-758 Dk Dl, Shy Ptngs 777-785 Ce Mtx ss 791	Tr Py 73 Tr Py 351			
791	986	195	179	Ok	Ce Mtx 791 U 255 884	Dl	Sgs 810 Ce Mtx ss 833, 840 Frag 848 Sgs 857 Crs Xln Dl, Dissem Py 876-880 Ra Sgs 884 Ce Mtx 893 Sc Sgs 893-895 Ce Pb Cg 916 Sgs 927 Grn Sh, Sed Br 934 Brn Dl Sed Br 935 Ce Nods 947, 955, 963 Sgs in Grn Sh 974	2-5% Dissem Py 876-880			
986	1027	41	40		TR 986	Dl	Crs Xln, Lo Sed Br 986-1008 Fi-M Xln, Lo Crs, Lo Sed Br 1008-1027				
1027	1038	11	11			Ls					
1038	1041	3	3		E 1041	Dl					
1041	1068	27	20			Ls					
1068	1130	62	58			Dl	Crs Xln, Lo Fi-M Xln, Abu Dol, Sed Br Ra Sgs 1127				

LOCATION

PROPERTY

THE NEW JERSEY ZINC CO.

STARTED BOTTOMED LOG BY

SHED NO. DISCARDED

HOLE NO. BW-28 (continued)

ELEVATION

COORDS.

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			
1130	1135	5	5			Ls								
1135	1145	10	10			Dl	MXln 1135-1140 Crs Xln, Sed Br 1140-1145							
1145	1150	5	5			Ls								
	1150	Bottom												
							R&S bed Dlztn 73%							
							Elev. TR 705'							

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Mrs. Annis Helton

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn.

Section C-1269

HOLE NO. BW-29

STARTED 5-31-57 BOTTOMED 6-27-57 LOG BY RCG
SHED NO. _____ DISCARDED none

ELEVATION 1625.05
COORDS. 60,953.99 N 30,541.84 E
BRG. _____ INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		% Zn
0	20					RC	BX-AX 23						
20	118	98	86	Oc		Ls	Lenoir type 20-83 Ce Nods 33, 34 Openings 25-29, 38-40, 57-58, 61-62, 66-67 We 73 Sc Xln Ls, no Sh Ptngs 83-93 Fi Xln Ls, no Sh, no Ac 93-118						
118	839	719	695	Oma		Dl	Pb Cg 135-137 Grn Dl 172-175 Bu Strat, Wk Rd 172-175 Sc Rddsh 189-247 Intense Red 200-202, 206-211 Ce Sed Br 258 Sc Wk Rddsh 292-299 Frng, Mylo 311-313 Sc Wk-Mod Frng 313-345 Wk Rddsh 317-320 Vert Blk Sh Seam 358-361 Sc Rddsh 370-374 Ce Mtx ss 372 Sc Sgs, Dist Strat 377-380 Sgs 396 Sc Frng 393-432 St Frng, Mylo 405-406, 415-417 Mylon. 430-432 Num Sgs 444 Ra Sgs 462 Dk Dl 475-487 Abu Sgs 487 Cot Rk 501-502½ Sc Sgs, Dist Strat 514-519 Cot Rk 523 Sgs in Ce 549 Si Dl 549-550 Ra Sgs 555 Frng 591 Sgs 598 Bu Bu Dl 607 Abu Bu Sgs, Lo Ce Mtx 624-625 Ce 631-632 Sgs & Grn Sh/ Dk Ce 632 Sgs, Grn Sh & Ce 636-639 Ce Cg 643, 644 Bu Sgs 698-701 Sc Si Dl, Ce 706-711 Ce Mtx ss w Pb Cg (Oo?) 707-709 Ce Pb Cg, Abu Sgs 711-713 Cot Rk 717-719 Frng, Mylo 730-732, 733-734 Sgs 762, 765 Frng, Fa 781 Sc Abu Sgs, Lo Cot Rk 786-790 Ce 794-795 Fa 822 Ce Mtx ss 839						
839	955	121	89	Ok	Ce Mtx 839 Bru Oo 890 U2ss 914	Dl	Sgs 851 Dist Strat 873-880 Sgs 879 Frng 881 Frng, Sgs, Bru Oo Ce 890 Sc Frng, Lo St 892-955 Sgs, Dist Strat 914 Dol 922 Sed Br 932-934 Mylo 935-937 Abu Sc-Bu Sgs 940-943 Sed Br, Sgs, Oo Ce 943-945 Cot Rk 945-946½ Dist Strat 948-951 Sgs 951						
955	959	4	4	1% Zn est		Min		Shis Sp in Frg	10177	986	990	3/4	1.18
959	986	27	21			Dl	Frng, Lo Mylo 959-1022	Trs Sp 972, 973	10178	990	995	4/5	1.13
986	1015	29	26					Shis Sp in Frg, Br	10179	995	1000	3/5	1.76
									10180	1000	1005	5/5	0.15
1015	1022	7	7			Dl		Shi Sp 1019	10181	1005	1010	5/5	0.95
									10182	1010	1015	5/5	1.56
1022	1092	70	52		TR 1022	Dl	M-Crs Xln Abu Frng, Br, Sgs 1024 Mylo 1060, 1066, 1075, 1078, 1080, 1082, 1084-1092			986	1015	29'	1.15 % Zn

LOCATION

THE NEW JERSEY ZINC CO.

HOLE NO. BW-29 (continued)

ELEVATION

STARTED BOTTOMED LOG BY COORDS.

PROPERTY SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			
1092	1121	29	24			Ls	St. Frug & Br, Cc							
1121	1197	76	51			Dl	MXlq, Sc Frug to 1152, Abu Sed Br. Nu Sgs 1175, 1182-1190 Ls 1157-1160, 1174-1182							
1197	1205	8	7			Ls	Nu Sgs 1197, 1199							
	1205	Bottom					Ras bed Dlztn 83%							
							Elev. TR 603'							

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Mrs. Annis Helton

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn.

Section C-1269

HOLE NO. BW-30

ELEVATION 1648.95
STARTED 6-27-57 BOTTOMED 7-22-57 LOG BY RCG
COORDS. 61,042.77 30,483.63
SHED NO. DISCARDED none
BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			
0	21	—	—			RC	Bx-Ax 41							
21	58	37	33	Oc		Ls	Sed Br/Grn Ls 28-31 Frng 33-34 Sc We to 37 I ls/dl 46-58 Sh 54 Ce 57-58							
58	793	735	658	Oma		Dl	We 74,76 Grn Sh 84-87 Frng 94 Sc Rddsh 108-201 Red Sh 133 Abu (50%) Red Shw Dl Br 153-166 Sc Red Sh 166-173 Fi Bu Dl 201-206 Wk Rddsh 230-239, 257-260 Cot Rk 290 2" Ce Mtx ss 311 Sc Rddsh 341-371 Sgs 367, 386, 401 Cot Rk, Si Dl, 446-448 Crs Sgs 458-460 Wk Pb Cg 466 Sc Frng 470-482 St Frng 482 Ce Sed Br 488 St Frng, Sgs 522, 530 Sgs 537 Sgs in Ce 554 Cot Rk 560-562 Cc, Ce Mtx ss, Abu Sgs 564-566 Ce, Cot Rk, Oo 568-570 Cot Rk 572 Ce Cg 576 Cc, Ce Pb Cg, Ce Mtx ss, Ra Bu Dl 635-639 Fa, St Frng 640 St Frng, Lo Vst 647-677 Si Dl 683-687 St Frng 689-692 Ce 691 Sc Sgs 710-712 St Frng 723-766 Vst Frng, Mylo 743-766 Fa 766 wk Frng 766-778 Sed Br 781-784 Irreg-Vert Stringers & Nods Ce Mtx ss 787-793							
793	977	184	157	Ok	Ce Mtx 793	Dl	Sgs in Sed Br 794, 799, 805, 818 Wk Frng, Sed Br 835-858 St Fa 843 Sgs 848 Sc Abu Sgs 853-858 Mylon 858-862 St Frng 862-878 Wk Frng 878-918 Cot Rk 897-901 Num Sgs 907 Gy Ce, Cot Rk, Bln-Grn Ce 915-918 Sgs 917 Mylon 918-925 St Frng 925-934 Frng 934-962 St Frng 962-968 Mylo 968-980	Trs Sp 935, 941 Py 941						
977	1052	75	52		TR? 977	Dl	Mylo to 980 St Frng 980-1032 Abu Dol 991-1020 Sc Sed Br 1022-1052	St Shis Py 1000-1005, 1046, 1051						
1052	1059	7	7	1½-2%	Zn est.	Aore		Rcpl Sp in Crs Xln Dl		1052	1059	1½%-2%	Est.	
1059	1071	12	11			Dl	Crs Xln, Sed Br							
1071	1076	5	4			Ls	Incip Dlztn							
1076	1157	81	65	Ok-Olv	Tbed? 1111-1123	Dl	Lo Crs Xln, Lo Sed Br Num Sgs 1127, 1136, 1140		Elev. TR	672'				
1157	1166	9	8	Olv		Ls	Incip Dlztn, Abu Sgs 1162 Sgs 1164							
	1166	Bottom					R&S Bds 96% Dl							

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Guy Seals

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn.

Sec. B-1296

STARTED 7-17-57 BOTTOMED 8-13-57 LOG BY RCG
SHED NO. _____ DISCARDED _____

HOLE NO. BW-31
ELEVATION 1786.00'
COORDS. 62479.34 31,449.58
BRG. _____ INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	55					RC	BX-AX 70 AX-EX 341				
55	294	239	128	OK		DI	Sc Sgs 55-60 Open 74½-75, 78-79, 85-86 dip.				
					Openings:		64° @ 84 Abu Sgs 87 Abu Sgs, Wvy Strat 105-106				
					74½-75		Openings noted under markers from here down				
					78-79	U2SS	Frag 133 Dist Strat 140-142 Dist Strat/Sc Sgs 169-				
					85-86	172	172 Sc Sgs 185 Calc Vug 194 St Ce Pb Cg 194-195	Lim after Py 291			
					114-115						
					121-122						
					125-125½						
					126-126½						
					145-154						
					159½-160						
					162½-163						
					176-178						
					197-202						
					208-211						
					212-215						
					221-227						
					229-233						
					242-254						
					271-275						
					277-279						
294	392	98	57	TR294 E334	304-307 314-319	DI	Fi-Crs Xln, Lo Sed Br We 356-358 Cot Rk 358-359	Tr Sp 299 Sc Shis Py 350-368			
392	401	9	9			Ls	Lo Sed Br				
401	447	46	46			DI	Ls, Sed Br 417-419 Sed Br 419-447				
447	455	8	6	Olv	Tbed	DI					
455	465	10	10			Ls	Partial Olztn, Sed Br Sgs 462				
	465	Bottom					R & S Bds 94% DI.				
							Elev. TR = 1492'				

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Mrs. Annis Helton

THE NEW JERSEY ZINC CO.

Jefferson City, Tenn.

Sec. C-1269

STARTED 7-22-57 BOTTOMED 8-12-57 LOG BY RCG
SHED NO. _____ DISCARDED _____

HOLE NO. BW-32
ELEVATION 1672.56
COORDS. 61,133.82 30,429.82
BRG. _____ INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	26					RC	NX-BX 30 BX-AX 34				
26	699	673	644	Oma		DI	CePbCg 32-33 ScRddsh 26-59 Intense Red 52-57 BuStrat 64-68 Irreg BudGy FiXln DI 110-117 RedStrat 135-138 We 157 Sgs 163 Fi Bu Strat 182-185 75° Fa 191 Sgs 212 ScRddsh 308-314 CalcVug 321 CePbCg 322 ScRddsh 327-357 75% Intense Red 334-341, 352-356 8" CotRk 365 ScSgs, StratDI 377-381 GrnSh Sed Br 414-416 BnSgs 420 Blu-GrnSh 462-463 CotRk 465-466 Sgs 486 CotRk 487-488 8" Cg-Irreg Ce/1" CeMtxss/40" CotRk 489-494 14" Irreg Ce, Sgs top & base 500-501 Sgs 508, 510 Frug 518-524 Sed Br w Sc Sgs 528-531 PbCg, Sgs 535 Sgs 558 Ce 565-566 GrnSh 577 Ce & GrnSh 623 Ce 625-626, 649, 659 Sc frug 668-688, St 672, 682 CeMtx ss 699					
699	905	206	198	Ok	CeMtx 699 U 2ss 788	DI	Sgs 700 Num Sgs 746 Sgs 754, 762 Sgs, Dist Strat 788 Irreg Ce 806 Num Bn Sgs 811 Sgs, Ce Sed Br 814, 817-818 Num Sgs 825 Ce Sed Br 834, 839 Sgs & Grn Sh 843 Sed Br 843-847, 851-853, 878-879, 880-881 Sc Brn Mot 885-905					
905	995	90	82		TR 905 A 911 B 916 E 962	DI	Fi-MXln Sgs 911 Sed Br 913-917, 920 Sgs 921 Sed Br 921-926, 931-940 Ce 938-940 MXln 940-948 St Fa 962 Sed Br 963-972 Ce Nods, Frug 972-976 Sed Br 978-984 Ls Sed Br 984-985					
995	1051	56	43		H 1027 J 1043	Ls	Sgs 1003, 1009 DI 1025, 1027 Sgs 1027 Abu Sgs 1043				
1051	1085	34	22	Olv?		DI	Sgs 1075, 1076, 1081 Ls 1074-1077, 1081-1082, 1083-1084 Frug 1085				
	1085	Bottom									
							R & S 62% Dolomite				

LOCATION Copper Ridge Belt Sector VI

THE NEW JERSEY ZINC CO.

SECT. - - AX-TENN- C-1269 C-1359

HOLE NO. BW-33

ELEVATION ~~1601.50~~ 1590.20

STARTED 8-13-57 BOTTOMED 9-23-57 LOG BY RCG

COORDS. ~~60,859.51~~ 60,805.18 N ; ~~30,598.12~~ 30,670.07 E

PROPERTY Mrs Annis Helton (NJZ M&M) SHED NO. B-6 DISCARDED 0-702

BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	23	23	—			RC		
23	209	186	164	Oca		Ls	Gy MXln, Shy Ptgs 23-32 Open 32-42 MXln Hvy Sh 42-58 MXln Sty 58-61 Fi Gr, VShy 61-65 MXln, Sty 75-106 Fi Gr, MShy 106-152 Sc DK Ce Nds 108-114 DK Zos 113-115, 116-117, 137-140 Dl 152-156 Ls, Fi Gr, Wk Shy 156-209 Lo Ac, Lo XlnZos 175-191 StFa 198-199	Shi Py 190
209	845	636	553	Oma		Dl	Ce 217-218 Frg, Lo We, Core Brkn 216-240 Open 223-225 StFa 227 Grn Shy Dl 261-264 Bu Dl 269-270, 276-278, 283-284 Sc Rdsh Sh 285-301 Intense Red 289-292, 295-300 Bu Dl, Mud Flake Br, Cot Rk Nds 341-349 MXln Bu Irreg 351-358 Sc Sgs 377-379 Red Strat 394-399 Sgs 403, 420, 446 Red Strat 446-459 Sc Sgs 472 Sc Rdsh 478-490 StFa, Mylo 491-492 DK Dl 509-510 Frg 536 Sc-Rd Sh 576-578 Nu Sgs 582 Cot Rk 596 Grn Dl 598-599 Sc Sgs 612-614 DK Lt Ce Blebs 623 Fa 646 Cot Rk 646-647 Sh 696-697 Cot Rk 720-722 Sc Abu Sgs 727-729 60° Fa 762 70° Fa 780	Shi Sp 750, Shis Py 772 Shis Sp 787, 790, 803, 804, 808, 816, 832, 837, 845
845	873	28	22	Oma			Mineralized	
873	913	40	33				Ore	
913	938				CeMtx	Dl	StFa 45° 913	
					938			
938	946	8	8			Dl		
946	974	28	25		Brn Oo		Mineralized Sgs 950 Abu Sgs 957 Sgs 961	Shis Sp 980-983, 993, 995, 996-999, 1013, 1016, 1031 Py 1032 Shi Sp 1045, 1049, 1070 Py 1097
974	1099	125	83		1008		Fa (Bedding) 1032 Sc Sgs, Sed Br 1049-1056 Sgs 1062	
					4-255			
					1062			
1099	1105	6	5				Mineralized	Shis Sp 1108, 1109, 1112, 1113-1116, Py 1117, 1163
1105	1127	22	22		TR	Dl	Sed Br 1027-1196, Lo Crs Xln	
1127	1196	69	52		1127	Dl		
1196	1224	28	18			LS	Sgs, Grn Sh 1245	
1224	1310	86	79			Dl	Crs Xln 1248-1250, 1260-1263 Sgs 1269, 1272 Abu Ce 1288-1292 Sgs 1307 Ce 1304-1305 Sgs 1304-1305 LS 1310-11	
1310	1311	1	1			LS		
1311	1315	4	4			Dl	1315-1318	
1315	1318	3	3			LS		
1318	1320	2	2			Dl	Sgs 1320	
	Bottom 1320						R & S Bds. 85% Dl.	

ANALYSES SMPL. NO.	FROM	TO			
10250	873	877	4'	1.36	8" 23%
10249	877	881	4'	1.11	
10248	881	886	5'	12.58	
10247	886	891	5'	7.07	
10246	891	896	6'	2.31	
10245	897	901	4'	1.55	
10244	901	906	5'	13.44	
10243	906	913	7'	4.09	
Weighted		Average			
	881	913	32'	6.68	
10211	946	951	5'	0.68	
10212	951	956	5'	1.53	
10213	956	961	5'	2.50	
10214	961	966	5'	1.73	
10215	966	970	4'	0.83	
10216	970	974	4'	0.80	
	946	974	28"	1.39%	
10217	1099	1105	6'	1.53	

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Guy Seals (N.J.Z. M&M)

THE NEW JERSEY ZINC CO.

SECT. B-1296

STARTED 8-15-57 BOTTOMED 8-24-57 LOG BY RCG
SHED NO. _____ DISCARDED None

HOLE NO. BW-34
ELEVATION 1789.14
COORDS. 62727.11 N ; 31,862.49
BRG. N/1 INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	87	87	—		TR	RC	Bx-Ax 100				
87	277	190	188	OK	277	DI	Ce 87 Lo Bu Sh Br Fill 95-227 Cot RK Frags of Mtx 105-107, 110 Open 111-114 WK Frg 117 St Frg 137 Strat DI, Sgs at base 207-209				
277	371	94	92		E 315	DI, Lo Ls as Noted	St Sed Br 227-229 Lo Bu Sh Br Fill 235-290 Sc Frg 246-265 St Sed Br 290-300 Sgs 295 Sh, Ce Nds 308 Sed Br 316-318 Ls 319-320 Sed Br 329-333 Ls 332-338 DI MXIN, Lo Sed Br 338-354 Ls 354-359, 364-366				
371	406	35	34			Ls	4" DK DI 393 DI 394-396, 404-405				
406	410	4	4			DI	DK, Abu w/ Irreg Ce (Not T Bd)				
		Bottom 410					Elev. TR 1512				
							R&S Bd. 61% DI				

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Eugene Clance

THE NEW JERSEY ZINC CO.

Sect Ax-Tenn B-1296

HOLE NO. BW-35

STARTED 8-26-57 BOTTOMED 9-13-57 LOG BY RCG
SHED NO. B-6 DISCARDED NONE

ELEVATION 1757.67
COORDS. 62,883.89 ; 32,116.60
BRG. Nil INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO	FROM	TO
0	26	26	-	RC			Bx-Ax 40 App Dip 47° @ 39				
26	104			OK		Dl	Cavity 42-50, Soft Rk, Caves 51-104				
			104	Lost Hole							
0	16	16	-	RC			Abu Sgs, Ce Chips 43				
16	273	257	190	OK		Dl	Openings (6"ss) 45-104 Fa 109 Crs Br 109- Fa 127, 130 Ce Sed Br 129 Sgs 142-144, 155, 162, Sgs in Sed Br 238				
273	324	61	52		TR? 273 E? 291	Dl	F, -M Xln, Lo Sed Br Ce 292-294, 304-311, 313-324				
324	333	9	8			Ls					
333	381	48	48			Dl	Ce 333-334 Sed Br 335-340 Ls 336-337 Ce 347-357, 358-362, 364-367 Sgs, Grn Sh 376 Ce Nds 376-378 Cot Rk 378-380 Ce 380-381				
381	396	15	15			Ls	Ce Nds 386, 388 Sgs 388 Ce Nods 390, 393 Ce, Sgs 394				
396	444	48	45			Dl	Ce 397, 405-406 Sgs 412				
444	470	26	21	Olv	Top T 444	Dl	Sc Sgs 468-470				
	470	Bottom									
							R+S Beds 87% Dolomite				
							Elev. TR 1485				

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Annis Helton (N.J.Z.-M&M)

THE NEW JERSEY ZINC CO.

SECT. AX-TENN C-1269 C-1419 " " "

HOLE NO. BW-36

ELEVATION 1585.56

STARTED 9-23-57 BOTTOMED 10-24-57 LOG BY WJC

SHED NO. B-6 DISCARDED None

COORDS. 60,762.08 ; 30662.39

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	F.M.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	3	3				RC	Nx-Bx 10 Bx-Ax 20	
3	303	300	271	Oca		LS	Ol Type Ls 3-30 Ob type 30-90 Ry Ob Type 90-101 Ol	
							Type 101-109 Crs Xln w/Shy Pkgs Lo Ol type 109-145 F. Dl 197-206	
							St Fa Zo 231-236 Abu Sc Sgs 261-263 Sgs 269, 283 Sgs, Pebs	
							Cg 268 Foss Ls 286 Ce Cgl, Basal Unconf. 297-300	
303	690	383	379	Oma		Dl	Rex In 303-327 Ce Br 425 Ce Nd 427 Mot Dl 431-439, 479-482	
							Ra Sgs 482 Strat Dl w/Ce Nds 494-499 Sc Sgs Below 2" Bd Ce	
							495 Abu Crs Sgs 526 Sc Crs Sgs in Strat 531 Sc-Bnd Sgs 549-558	
							App Dip 45° @ 556 60° Fa 562 Sgs Otet 591 Peb Cgl 606 Frq,	Tr Sp 679, 680, 683
							Fa? 606 Crs Sgs 608 Wk Frq 616 App Dip 40° @ 642 Lt Gy	684, 687 Sh, 690
							Brwn Strat 650-657 Sgs 684 Sgs 690	
690	820	130		Oma			Mineralized Open 705-707	
820	821	1	1				Mineralized Fault Zo	
821	833	12	12			Dl		Sh Sp 821-823
833	853	20	18				Mineralized	
853	983	130	125			Dl	Abu Crs Sgs 938 Sc Sgs 952	Trs Sp 903, 904 Shis
983	986	3	1				Mineralized	Ry 981 Tr Sp 952
986	1006	20	20			Dl		Tr Sp 988
1006	1011	5	5		Ce Mtx	Dl	Mineralized	Sh Sp 997, 1001
1011	1012	1	1		1012	Dl		Ry 997, 1001 Sc Trs
								Sp 1001-1006
1012	1021	9	8	OK		Dl	Sc Crs Sgs 1020-1021 Ce Mtx Like Sgs 1036-1037	
1021	1026	5	5		U-255		Mineralized	Tr Sp in Ce 1099
1026	1153	127	125		1072	Dl	Sgs, Peb Cgl 1050 Bu Dl w/Ce Nds 1045-1094 Sgs, Grn	
							Sh 1064 Sgs 1083, 1084 Bnd Crs Sgs 1095 Sed Br 1128-	Tr Sp 1146
					TR		1132 Ce Br 1139 Sed Br 1149-1153	
					1153			
1153	1198	45	44		E?		6" Grn Sh 1190-1191 Fi Gr Dl w/Ce Nds E? 1194-1198	
					1198			
1198	1200	2	2			LS		
1200	1207	7	7			Dl	Oo Ce 1206	
1207	1209	2	2			LS		
1209	1211	2	2			Dl		
1211	1221	10	10			LS	Sgs, Grn Sh 1216	
1221	1244	23	23			Dl	Crs Xln 1231-1243 Oo Ce 1252	
1244	1282	38	38			LS		
1282	1291	9	8		J Sgs?	Dl	Sgs 1282	
1291	1308	17	17		1304	LS	Crs Abu Sgs in Ls 1304	
1308	1309	1	1			Dl	Fi Grn DK Dl	
1309	1323	14	14		TBd	LS		
1323	1340	17	15		1323-1328	Dl	Crs Xln 1336-1337 Hvy Ce 1331-1340 Sgs 1340	
		Elev TK 433					Bottom 1340 R&S Bds 51% Dl	

TRO-PARI SURVEY

Footage	Incl.	Brg.
200'	87°	S 86°30' W
400'	85°	S 83°30' W
600'	89°	N 71° W
800	82°	N 66°30' W

ANALYSES SMPL. NO.	FROM	TO	'	% Zn
	690	695	5'	1.27
	695	701	5'	6.55 %
	701	705	4'	4.12 "
	707	712	5	9.87
	712	718	6	0.25
	718	723	5'	1.40
	723	728	5'	8.87
	728	733	5'	0.77
	733	738	5'	5.77
	738	743	5'	6.05
	743	748	5'	8.42
	748	755	7'	2.72
	755	761	6'	1.10
	761	766	5'	6.56
	766	771	5'	2.35
	771	776	5'	6.85
	776	782	6'	6.97
	782	788	6'	4.35
	788	793	5'	1.57
	695	793	98'	4.52
	793	800	7'	0.32
	800	807	7'	0.42
	807	812	5'	2.54
	812	816	4'	4.37
	816	821	5.	1.07
	793	821	28'	1.45 %
	833	838	5'	4.05
	838	843	5'	1.07
	843	848	5'	0.95
	848	853	5'	2.64
	833	853	20'	2.18
	983	986	3'	2.50% Est
	1006	1011	5'	0.52
	1021	1026	5'	1.57

LOCATION Copper Ridge Belt
Sector II
Area D

PROPERTY Guy Seals - NJZ M&M

THE NEW JERSEY ZINC CO.

DIP SECT AX-TENN B 1337
Sec. B-1296

HOLE NO. BW-37

ELEVATION 1806.50

STARTED 10-11-57 BOTTOMED 10-22-57 LOG BY WJC

COORDS. 62,558.53N; 31,612.03E

SHED NO. B-6 DISCARDED None

BRG. Nil INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		% ZN	
0	80	80	—	Oma,		RC	BX-AX 159			246	251	5'	1½%	EST
80	246	166	154	OK		DI	Soft Rk 82-87 Open 121-123, 124-125, 134-138, 151-153 (Ce Mtx Lost in Openings 121-153)			251	257	6'	1½%	EST
							Ce 164 Hi Ang Fa Zo 172-176 Ce 179 Abu-Bnd Sgs in Strat 195 (U-255?) Sed Br, Ce 205-206 Sgs 261	Tr Sp 243, 262, 267 Sh, Sp 271		299	305	6'	Tr	EST
246	257	11	10		TR	MIN	Mineralized	St Sh, Sp 276 Sh,	9846	305	311	6'	1.32	
257	296	39	36		296	DI	Bnd Sgs, Grn Sh 267 Sgs in Sed Br 287-289 Ru Sgs 292	Sp 333	9847	311	316	5'	3.87	
									9848	316	321	5'	0.92	
									9849	321	325	4'	2.45	
296	299	3	3			DI			9850	325	330	5'	3.10	
299	330	31	31			MIN	Mineralized		Weigted Average					
330	385	55	52			DI	6" Grn Sh 331 Py in Rex In DI 358-360 Crs Xln DI 376-379			305	330	25'	2.28	% ZN
385	389	4	4			LS								
389	420	31	31		J Sgs?	DI	Blk Ce 390							
420	422	2	2		426	LS								
422	441	19	19		T-Bd?	DI	Crs Rex Ln DI 422-428 Crs Sgs 426 (J?) Crs Sgs 430 F, Grn DI 441-449 Abu Bnd Sgs 449							
					441-449									
441	456	15	15			DI	Hvy Ce 450-455 Sgs 453 @ Bs 2" Wh Ce							
								Sc-Trs. Sp 434-435						
		Bottom 456				R&S	Bds 96% Dolomite							

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Guy Seals (NJZ. M&M)

THE NEW JERSEY ZINC CO. Sect B 1296

STARTED 10-22-57 BOTTOMED 10-31-57 LOG BY W. JC
SHED NO. B-6 DISCARDED None

HOLE NO. B.W-38
ELEVATION 1800.01
COORDS. 62,643.83 ; 34,700.52
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		Zn%	
0	94	94	—			RC	BX-AX 140			303	305	2'	2%	Est
94	307	213	160	OK		DI	Open 102-106 Cavities, Soft Rk 141-155, 155-165							
							Abu Fr Sgs, Sh 172 Ce 174 Sgs Ce, Grn Sh 186 Fr, Fa 192							
							Abu Sc-Bnd Sgs 197-198 Crs Sgs, Grn Sh 199 St Fr Zo							
					4-255?		208-212 Fa? 210 Sgs 210 Ra Sgs, Grn Sh 240 St 75°	Sh, Sp 262-263						
					212		Fa 218 Fr 216-218 Sc-Bnd Sgs in Fr Zo 210-212 Sc-	Shis, Trs 285, 287						
					TR		Bnd Sgs over 6" Grn Sh in Strict 232-233							
					307									
307	365	73	73				Sgs 309 Ce Bd 365-368 App Dip 50° @ 402							
					B?									
					313									
					E									
365	368	3	3		365	Ce								
368	372	4	4			LS								
372	375	3	3			Ce								
375	414	39	37			LS	Sgs 412							
414	416	2	2			DI								
416	422	6	5			LS								
422	424	2	2			Ce	Sgs, Oo Ce 423							
424	428	4	4			LS								
428	439	11	11		J Sgs?	DI								
439	448	9	9		440	LS								
448	449	1	1			DI								
449	458	9	9			LS	Crs Sgs 449							
458	480	22	22		Olv?	DI								
	Bottom 480						R & S Bd 48% DI							
							Elev TC 1493							

LOCATION Copper Ridge Belt
Sector II
Area D

PROPERTY Annis Helton

THE NEW JERSEY ZINC CO.

SECT. C-1269

STARTED 10-25-57 BOTTOMED _____ LOG BY WJC
SHED NO. _____ DISCARDED None

HOLE NO. BW-39
ELEVATION 1573.84
COORDS. 60,682.66N ; 30,729.55E
BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	8	8	–	RC			NX-BX 10 BX-AX 20 Open 77-78, 191-192	
8	396	388	367	Oca		Ls, Dl	Truns Zone 346-396 Fi Grn Thin Bd DK Gy Dl 354-370	
396	1066	670	639	Oma		Dl	Highly Fract Cont Fa 443 Lt Gy Strat 450-452 Ce 483 Rd Mot Dl 497-519 Rex In 525-531 Rd Strat 545-547 Ra Crs Sgs 573 Ra Sgs 587 Dist Strat 592-596 Sgs in 1' Strat 620 45° Fa @ 610 Sc-Bnd Sgs 638 Hi Ang Fa 75° @ 681 Fr Zo 683-687 Crs Abu Sgs above 4" Dist Lt Gy Strat, Rd Mot Dl 718 Rd Mot Dl 719-728 Frg, Fa? 752 Wh Ce 8" 760 Sgs in Gy Strat 771-772 Fr Zo 750-755 Bd Ce 778 3" V Crs Abu Sgs over 2' Lt Gy Dl 801 Bnd Sgs in Rd Strat 806-807 Abu Fi Sgs 826 Bnd Sgs 830 Ra Sgs in Mot 847 6" Shy Bnd w/ Sc Sh in Dl 852 Abu Bnd Sgs → Ce Mtx 871-872 St Fr Zo 876-878 (Hi Ang) Abu Fi Sgs, Ce, Grn Sh 919 Hi Ang 75° Fa 935 Frg 933-943 Crs Bnd Sgs 942 Oo Ce, Sgs 951 Crs Sc Sgs 972 Ra Crs Sgs 979 Sgs 999 (F Ce Chips) Fi Sgs over 6" Grn Sh 1031 V Crs Abu Ce	
					Ce Mtx		Mtx Sgs 1017 Hi Ang Fa Zo 68 1064-1065	
1066	1246	180	164	OK	1066 Bnd Oo? 1118	Dl	Sc Sgs 1073-1074 Abu Sgs, Qtzt 1079 Sc-Bnd Sgs below 8' Fi M-Gy Dl w/ Shy Ptgs 1087-1088 Hi Ang Frg 1095 Abu Sc-Bnd Sgs in M-Gy Strat 1113-1114 Sgs Oo Ce 1118 Sgs 1123 Sed Br 1129-1139 Lt Brwn Fi Grn Dl w/ Ce Nds, Sed Br 1139-1159 Sc Sgs 1151-1152 Bd Ce 1157-1158 Ra Sgs below 6' Gy Strat 1165 Crs Bnd Sgs in Dist Strat 1170-1172 Sed Br Sgs, Ce 1174-1175 Bnd Sgs over 4' Strat 1179-1180 Sed Br w/ Sgs 1185 Abu Bnd Sgs 1188-1189 Sgs in Fr Zo 1246	
1246	1334	88	80		TR 1246	Dl, Sed Br.	St 40° @ 1257 Sed Br Zo 1261-1326 Bd Ce 1384-1389	Trfy 1287
1334	1389	55	47			Sed Br	Sed Br 1206-1389	
					Bottom		1389	

ANALYSES

SMPL. NO.	FROM	TO			

TRO-PARI SURVEY

Footage	Inclin	Brg
200	90°	—
400	86°	N62°W
600	90°	—
800	80°	N49°30'W
Re survey		
600	90°	—
* 800	84°	N53°30'W
700	84°	N46°W
400	86½°	N62°30'W

* Check TRO PARI Book

LOCATION Copper Ridge Belt
Sector II - Area D

PROPERTY Guy Seals (NJZ-M&M)

THE NEW JERSEY ZINC CO.

DIP SECT. B 1338
~~LONG. SECT~~ B 1296

STARTED 11-1-57 BOTTOMED 11-29-57 LOG BY WJC
SHED NO. DISCARDED None

HOLE NO. BW-40A
ELEVATION 1803.45
COORDS. 162,546.01 31,549.54
BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	52	52	—		TR	RC	Bx-Ax 52	
52	331	279	204	OK	265? in Open		Frg 61 Open 93-96, 98-100 Frg, Fa? 105 Sc-Bnd Sgs 113-115 St Fr Zo 117-119 Abu Sc-Bnd Sgs 120-122 Brun Fi Grn Dl w/Ce Nds 144-170 Open 145-146, 164-166 Abu Sgs in Lt Gy Strat 185 80° Fa 196 Open 260-262, 273-285, 287-289, 290-292, 302-303, 304-305, 310-311, 314-317 (TR is in Cavity 260-272) R Bd below Cavity, Upper OK rock above Open 320-331	TrSp 273
							Lost Hole Moved 22' NE 11-7-57	
0	60	60	—		CeMtx	RC	Bx-Ax 326	
60	104	44	34	Oma	104? TR		Frg 61-64 Fa 45° @ 64 Abu Crs Sgs 66-67 Open 75-80 Crs Abu Ce Mtx Sgs 104	
104	321	217	141	OK	285-290	Dl	Cavity 107-112, 116-117 Sc Abu Sgs 118-119 St Fa Zo 124-125 Hi Ang Frg 125-126 Lo Ang Frg 130 Open 130-131 Oo Ce 125 Crs Sgs 133 Frg 159-160, 163-164 Lt Gy Dl w/Ce Nds 144-149, 159-173 Sgs 172 Sed Br 183-184 Crs Bnd Sgs 187 Ce Br 195-198 Sed Br 201 Abu Crs-Bnd Sgs in Sed Br 204-207 Open 238-240, 242-246, 255-262, 263-275, 294-304 276-285, 285-290 Open 315-316, 322-324	Shi Py 231
321	322	1	1			Dl		
322	325					Open		
325	335	10	10			Dl	St Ox Pitted Open 335-337 Prob originally Sc Sp ± 1%	
335	343	8	2			Dl	Open & Soft Rock	
343	352	9	7				Ox Min Zo (all Zn is oxidized)	
352	358					Open		
358	386						Mineralized Sed Br Zo 358-	Greenockite 368
386	433	47	38			Dl		Tr Pbs 380 Tr Sp 389 Shi Sp 410
433	435	2	2		J Sgs		Mineralized	
435	444	9	9		440	Dl	Sgs 440 (J)	
444	450	6	6		T Bd		Mineralized	
450	460	10	9	Olv	450		Sgs 460	
460	470	10	10			Dl	Sgs 470	
	Bottom 470						R ES Bds 100% Dolomite	

Elev. TK - 1516

ANALYSES

SMPL. NO.	FROM	TO	CORE RECOVERY	% TOTAL Zo ZZ	% Oxi Zn
	243	248	5'	2½% Zn	Est
	248	256	8'	½%	Est
	262	263	1/1	2.90	1.45
	263	275	OPEN		
	275	285	1/10	9.20	
	285	291	1/6	2.61	0.40
	291	293	1/2	1.85	0.32
	343	352	7/9	1.03	0.45
	358	363	5/5	9.05	1.57
	363	369	4/6	4.79	0.40
	369	371	1½/2	2.24	0.10
	371	375	4/4	0.50	
	375	379	4/4	0.10	
	379	382	3/3	9.84	
	382	386	4/4	5.50	
	433	435	2/2	4.00	Est
	444	450	6/6	4.50	Est
Weighted Averages					
	275	293	18'	6.19 % Zn	
	358	386	28'	4.73 % Zn	

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Guy Seals - (NJZ M&M)

THE NEW JERSEY ZINC CO.

SECT C-1352

STARTED 11-28-57 BOTTOMED 12-21-57 LOG BY WJC
SHED NO. B-9 DISCARDED None

HOLE NO. BW-41
ELEVATION 1753.01
COORDS. 62,315.25 31,738.23
BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		% Zn	
0	50	50	-			RC	Bx-Ax 120							
50	409	359	280	Oma		Dl	Cavity 52-57, 72-73 Ox 57-58 Cavity 83-89, 89-90, 104							
							-108 Ce Sed Br 114-115 Sgs, Grn Sh in Sed Br 117-119 Sgs in							
							Fr Zo 132-133 Dk Fl Grn Dl w/Ae's 141-152 Frg 156, 159							
							-161 Fa 40° @ 161 Ce Mtx Sgs in Strat 179 Dk Dl w/Ae's 183-190							
							Sgs over 3' Dist Strat 194 Mot Dl 200-203 Bu Dl w/Ce Nds							
							204-208 Abu Ce Mtx Sgs 218 Abu Fl Sgs 226 Abu Sc-Bnd							
							Sgs in Gy Strat 237 Bu Dl w/Ce Nds 242-250 St Frg, Fa?							
							259-260 Sc Sgs 268 Sc Sgs 275 Crs Abu Ce Mtx Sgs 295-							
							296 1' Whi Silicif Dl 296-297 Bu Dl w/Ce Nds 300-305							
							St Fa Zo 341-344 Fa 40° @ 343 Sc-Bnd Sgs → Ce Mtx 359-							
					Ce Mtx		361 (Below Gy Wavy Strat) Abu Sc Sgs 409							
409	563	152	147	OK	409	Dl	V Abu Sc-Bnd Sgs 422-424 (in Med Gy Strat) Oo Ce 468	Tr Sp 539 Sc Lo						
					4-255?		WK 40° Frg 474 Bu Dl w/Ce Nds 468-480 Bnd Sgs in Dist	Trs Sp 541-551						
					481		Strat 481 Sc-Bnd Sgs 484-485 Abu Crs Bnd Sgs 500 Sc Sgs in	Tr Sp 562 Lo Sc						
					TR		Strat 502 Strat Dl w/Sc Ce Nds 506-512 Ra Sgs, Grn Sh	Trs Sp 566-567		553	558	5'	1%	Est
563	661	98	86	OK	563	Dl	563 Abu Sgs in Sed Br 578 Crs Sgs in Sed Br 592-593	Tr Sp 565, 576						
					B?		Sgs, Grn Sh over St Ce Br 602 St 65° Fa 628-629 St Sed	Tr Py 580, 585						
					593		Br 563-600 Sed Br 635							
661	698	37	37	OK	T-Bed	LS								
698	709	11	11	OIV	698	Dl								
709	742	33	31			Dl	Sgs, Ce Cgl 711-713 Abu Sgs in Xln Dl 716-717							
742	746	4	4			Sp, Sh	Dissem Sp in Shy Sed Br			742	746	4'	1%	Est
746	760	14	14			Dl	Rexln	Tr Py 750						
			Bottom		760		R & S Beds 73% Dolomite							
							Elev TR 1190							

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Annis Helton (NJZ M&M)

THE NEW JERSEY ZINC CO.

SEQ. C-1269

STARTED 12-4-57 BOTTOMED 1-14-58 LOG BY WJC-EWR
SHED NO. DISCARDED None

HOLE NO. BW-42
ELEVATION 1642.94 ±
COORDS. 61,370.23 ; 30,345.24
BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	23	23	–			RC	Bx-Ax 30				
23	391	378	372	Oma			Sgs Qtzt 25 Abu Fi Sgs 40-41 CeNd 67 Sgs, WK Fa (45°) @				
							77 Frg 75-77 ScAbuSgs 85-86 1' Rd Sh 100-101 Sc-Bnd				
							Sgs 105 V Abu CeMtx Sgs, Lo Pebs 119-122 CeSed Br 131-138				
							Abu Sgs 134 OoCe 140 Ce Sed Br 145-146 Abu Sc-Bnd Sgs Below				
							1' CeBr 146-148 St 45° Fa @ 168 Abu Fi Sgs in DK Mot 180				
							Sgs Grn Sh 195 Sc-Bnd Sgs Below 8' Ae Zo 211 Bnd Sgs in				
					CeMtx		Dist Strat 214 CeBr 221-225 Sgs w/ce chips over 1" Grn				
391	535	144	142	OK	391	DI	Sh 237 Bnd Sgs 242 Abu Fi Sgs w/ Lo Ce Pebs 308 CeMtx Sgs				
					U-255?		312 Strat DI 330-332 CeMtx Sgs 391 6" Sc Sgs Below 6" DK				
					468		Gy Shy DI Brwn OoCe 404 V Crs Abu Sgs w/ wh Ce Chips				
							452-455 Crs Bnd Sgs 466 Sgs, Sh @ 1/3 s of Strat 468				
					TR		LP? Sgs 516				
535	565	30	29	OK	535	DI	Sgs A? 542				
565	567	2	2		"B" 549	LS					
567	574	7	6		"E" 565	DI					
574	586	12	10			LS					
586	595	9	7			DI					
595	601	6	4			LS					
601	608	7	7			DI					
608	624	16	12			LS					
624	645	21	18			LS					
645	647	2	2			DI					
647	673	26	20	OK	T-BED	LS					
673	683	10	9	Olv	673	DI					
683	710	27	26			DI	V Crs Sgs 702				
		Bottom			710		R&S Bd 40% Dolomite				

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Guy Seals (NJZ. M&M)

THE NEW JERSEY ZINC CO.

SECT. 1 C = 1352.

HOLE NO. BW-43
ELEVATION 1747.33
STARTED 12-22-57 BOTTOMED ____ LOG BY WJG-EWR COORDS. 62,364.93 ; 31,827.31
SHED NO. ____ DISCARDED None BRG. ____ INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	52	52	–			RC	Bx-Ax 60				
52	524	472	396	Oma		Dl	Sc-Bnd Sgs over 1" Grn Sh 92-93 Abu Ce Mtx Sgs over 1" Bd Ce 116 Abu Sgs 130 Abu Sc Sgs 141-145 2" Wh Ce 145-147 Fvg 166 Crs Sc Sgs 186 Sc-Bnd Sgs in Strat 200 Abu Sc-Bnd Sgs @ Bs of DK Dl w/Ac's 214-216 Sc-Bnd Sgs in Strat 218-219 Wh, Bd Ce 240-243 Sgs, Ce Chips 247 Abu Sc Sgs 270-272 WK 50° Fa 292 Bu Dl w/ Ble Ce 277-283 App Dip 50° @ 280 Sgs 314 Ce Mtx Sgs 338 Wh, Ce Br 338-342 Sh 50° Fa Lo 378-384 Sgs 413 Sgs, Bnd, Crs 430 Abu Sc-Bnd Sgs 477-479 F, Dl w/ Ce Nods 520-556 Abu Sgs 561, 579, 592 Mylo 603-605 Sgs, Grn Sh 607, 676				
					Ce Mtx Lacking						
524	663	139	121	OK	U-255 581 TR	Dl	Sc Sed Br 675-692				
663	709	46	43		663 E 696	Dl	F, G, Dl 683-684, 690-696 ("E" Mkr) Ce Sed Br 696-697 Gr Sh in Rexln 697-698 Ce Sed Br 698-703 F, Dl w/ Ac's 713-708 Ce 709				
709	723	14	14			Ls	Sgs 716				
723	724	1	1			Dl	F, Grn Dl				
724	747	23	23			Ls	Abu DK Sh 744				
747	751	4	3			Dl	Ce Sed Br, Dl				
751	766	15	15			Ls					
766	771	5	5			Dl	Ce Sed Br in Dl				
771	776	5	4			Ls	Red Mot				
776	777	1	1			Dl	Ce Sed Br, Dl				
777	778	1	1			Ls					
778	781	3	3			Ls, Ce	Ce Br				
781	783	2	2			Sed Br					
783	791	8	8		T.Bd	Ls	Hvy Ce				
791	807	16	14		795-802	Dl, Ce					
807	817	10	7			Ce	Hvy Ce				
817	824	7	7			Ls, Ce					
824	850	26	25			Dl	Sc Sgs 828 Ce Br 830-832, 844-848 Sed Br 847-850				
							Bottom 850 R&S Bds 45% Dolomite Elev TR 1084				

LOCATION Copper Ridge Belt
Sector II
Area D

PROPERTY Annis Helton (NJZ-M&M)

THE NEW JERSEY ZINC CO.

SECT C-1269

HOLE NO. BW-44

ELEVATION 1642.14

STARTED 1-14-58 BOTTOMED 1-27-58 LOG BY EWR-WJC COORDS. 61,617.66 N ; 30,197.28E

SHED NO. DISCARDED NONE BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	8	8	—	RC	Ce Mtx		Bx-Ax 20				
8	108	100	87	Oma	108	Dl	Sgs 9 Sc Loc Frq 18-26 Hi Ang Frq, Fa? 43 Sed Br 45-48 Ce Mtx → Sc-Bnd 51-52 Open 54-55 Abu Sc Sgs 59-61 Ox 68 Abu Sc Sgs 73-74 Wk Frq 88 Sc-Bnd Sgs 94 Ce Mtx w/ Ce Pebs 95 Sgs Below 2" Wh. Ce 99 Sc-Bnd Sgs → Ce Mtx 106-108				
					U-255						
					161						
					TR						
108	255	147	131	OK	255	Dl	Abu Fi Sgs, Ce 111 Sgs, Ce Pebs 137 Frq 147-153 Fi Dl w/ Ce Nds 156-162 Abu Sc-Bnd Sgs 160-161 Ra Sgs above 6" Sh 169 Sc-Bnd Sgs 177-178 (above Srrat) Ce Nds 184-189 Ce, Sgs in Grn Sh 189-190 Ox 201-202 Sgs in Grn Sh 225 Frs 225-227 Sed Br 236-239 Brn Mot Dl 251-255	Tr Sp 153 Tr Py 164			
					E						
					305						
255	383	128	117	OK		Dl	Sed Br 256 Ce Sed Br 259-260 Rq Sgs in Grn Sh 261 Med Xln 265-289 Sed Br 206 Fi Xln Dl 289-313 Sed Br 313 Sed Br 327 Frq 327-328 Sed Br 338-339 Sed Br 341, 341 Peb Cgl 361 Sed Br 362-370, 375-379, 394-409,	Tr Sp 281			
383	387	4	4			Ls					
387	391	4	4			Dl					
391	396	5	4			Ls	411-440				
396	397	1	1			Dl	Sed Br				
397	410	13	9		T Bd	Ls	Sed Br				
410	411	1	1		410-411	Dl					
411	440	29	24			Dl, Ce	Ce Sed Br				
							FIRST TR. 1567				
			Bottom		440		R&S Beds 87% Dolomite				

LOCATION Copper Ridge Belt
Sector II
Area D

PROPERTY Guy Seals N.J.Z. M&M

THE NEW JERSEY ZINC CO. SECT. -C-1352

STARTED 1-18-58 BOTTOMED 3-10-58 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. BW-45
ELEVATION 1752.26
COORDS. 62,259.37 N; 31,653.19 E
BRG. INCL. -90

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		
0	40	40	–			RC	BX-AX50						
70	420	350	331	Oma		DI	DK DI w/Ae's 43-52 Sc Sgs 67 Open 67-68 Ce Mtx Sgs 81 Open 81-83, 98-101, 102-107 Ce 101, 108 Sgs in Weathered DI 110 Wh. Ce 111-112 Med Gy DI 112-120 Ce Br 145 Ox 148 Sc-Bnd Sgs 172 Sc-Bnd Sgs 185-187 Abu Sc Sgs 188-189 Open 199-201, 202-204 Bd Ce 216-219 Abu Sgs 222 Open 233-234 Ra Sc Sgs 235 Ce Mtx Sgs 235-236 Ra Sc Sgs 240 Cr Sc Sgs 271 Open 258-263 Ox 265-266 Abu Crs Sc Sgs 292-293 Bd Ce 293-295 St 45° Fa 342-344 St Ox 342 Ce Mtx Sgs @ Bs 4' Strat 359 Ce Mtx Sgs 370 Crs Sgs 371, 372 Fi Lt Gy Strat DI 379-389 Wk Hi Ang Frg 396 Open 409-412 Sc Abu Sgs, Ce Chips 413-414 Ce 415-416 Open 416-420						
					Ce Mtx last in Cavit, 416-420?								
420	585	165	147	OK	TR 585 E?	DI	Lo Abu Sgs 423-425 1' Wh. Ce 469 WK Hi Ang Frg 488 Reduced to Ex due to bad Ground 498 Ce Br 516-517 Abu Sc-Bnd Sgs 524-525 Sed Br 530-642 Grn Sh 650 WK Fa Zo 558-559 Sgs 589 2' Wh. Ce 626-628 1' Fi DI w/ Ce Nds 644 (E?)	Sh i Sp 515 Tr Sp 547, 584		564	572	8'	1% Zn Est
585	644	59	52	OK	644	DI				589	593	4	1/2% Zn Est
644	664	20	12			DI	Ce Sed Br 644-664						
664	665	1	1			LS							
665	679	14	9			DI	Sed Br 664-672, 677-679						
679	684	5	5		J Sgs	LS							
684	687	3	2		738	LS, DI	Sed Br w/ Ls Frags						
687	696	9	4		TBd	LS	St Sed Br 686-754						
696	760	64	61		754-760	DI	Abu Sgs J 738 Fi DI w/ Ce 754-760 (T)						

Bottom 760 R&S Beds 56% Dolomite

LOCATION Copper Ridge Belt
Sector II
Area D
PROPERTY Cameron Short

THE NEW JERSEY ZINC CO.

Section C-1419

HOLE NO. BW-46

STARTED 1-29-58 BOTTOMED 4-4-58 LOG BY EWR
SHED NO. DISCARDED

ELEVATION 1636.28
COORDS. 61,228.31 N ; 31,439.99 E
BRG. INCL. -90

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	13	13	—			RC	Bx-Ax 25				
13	166	153	131	Oca		Ls	Oh type 13-77 Ol type 77-119 App Dip 40° @ 79, 45°				
166	276	110	94	Oca			@ 110 Sc Ra Sgs 242 264-272				
276	975	699	668	Oma		Dl	Grn Sh 310-312 Rd Mot Dl 339-355 Rd Mt 381-385 Lt				
							Gy Fi Dl w/Ce Nds 390-394 Rd Mot Dl 416-422, 424-436, 441				
							443 Abu Sgs 493 Ce Nd 512 Ra Sgs in Ce Sed Br 519 Sed				
							Br 519-523 Rd Mot 534-566 Sed Br w/Frs 575-576 Ra				
							Bnd Sgs 578 Ra Sgs 579-580 Crs Sgs in Rd Strat 589 Int				
							Rd Mot 609-636 Bnd Sgs 622 1' Whe Ce Bd 639 Sc Sgs in Lt				
							Gy Strat 653-654 Wh Bd Ce 659-661 Dk Dl w/Ae's 667-682				
							Sed Br 682-684 Ce Sed Br w/Abu Sgs 684 Sed Br 684-690				
							Sc Sgs 686, 689-690 Frg, Fa? 45° 697 Dk Ry Dl 713-715 Sc-				
							Bnd Sgs 710 Sc Crs - Ce Mtx Sgs 736-737 1' Grn Sh 737-738 V	35° Fa + 7 displ.			
							St 35° Fa Zo 739-743 Ce Mtx Sgs 743 1' Sh 743-744 (repet)				
							at 737-738) Bnd Sgs 760-761 Sed Br 761-773 Ce Nds 773-775				
							Sc Fi Sgs 784 Ce 805 Bnd Sgs in Strat 823 Ry Dike w Ae's,				
							Ce 828-835 Strat Dl w/Sc-Bnd Sgs 835-839 2' Wh, Ce 843-				
							845 Ce 853, 857 Ra Sgs 860 Sc Sgs 877 Ce Nds in Fi Bu Dl 881-				
							885 Sc-Bnd Sgs w/Ce Chips 897 Sgs over 1' rexln, Wh, Ce				
							904 2" Grn Sh 925 Ce Mtx Sgs w/Ce Chips 936 (+45) Frg, 30°				
					Ce Mtx		Fa 948, 950 Frg 961 Fa 40° 961-962 Dk Dl 970-973				
975	1159	184	158	OK	975	Dl	Sgs in Strat 994-995 Ra Sgs 1012 Crs Ra Sgs 1015 Ce Br 917				
					Brn Oo		Ce Nd 1023 Crs Sgs, Ce Chips 1025-1029 Oo Ce 1032 Sc-Bnd	Sp 1153-1155 =			
					1032		Sgs 1054-1055 Ce Nd Zo 1042-1062 Ra Bnd Sgs w/Ce 1067	2'-3% Est Zn			
					U-255		Sc-Bnd Sgs & Ce Chips → Ce Mtx 1076-1083 Sc-Bnd Sgs 1092 Ra				
					1055		Sgs 1096 2' Wh, Ce 1101-1103 Ra Sgs 1111 2" Sh 1141 Sc Sgs				
					TR		w/Ce 1158-1159				
1159	1196	37	35	OK	1159	Dl	Ra Sgs w/Sh 1170 Sh 1181 Sed Br w/Ce & Sh 1183-1188				
1196	1197	1	1		"E"	Ls	Est Dip 50°				
1197	1216	19	14		1196	Dl	Ce 1199, 1212, 1214 Sc Sgs 1213				
1216	1218	2	2			Ls					
1218	1221	3	3			Dl	Ce 1225-1226				
1221	1227	6	6			Ls					
1227	1228	1	1			Dl	Dl w/Ce Nods				
1228	1230	2	2			Ls					
1230	1233	3	3		J Sgs	Dl					
1233	1263	30	27		1293	Ls	Sgs 1246 Est Dip 25° @ 1244				
1263	1330	67	56		T Bed	Dl	Cot Rk 1263-1269, 1277-1288 Peb Cgl 1289 Cot Rk 1291-1293				
					1303-1309		Est Dip 30° @ 1322				
							Bottom 1330				
							R & S Beds 72% Dolomite				

THE NEW JERSEY ZINC CO.

SECT Ax-TENN C-1352

LOCATION Copper Ridge Belt
Sector II

HOLE NO. BW-47

ELEVATION 1718.15

STARTED 3-11-58 BOTTOMED 4-14-58 LOG BY WJC-EWR COORDS. 62,211.82N ; 31,558.06E

PROPERTY Guy Seals (NUZ-M&M) SHED NO. DISCARDED None BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			
0	37	37	-			RC	Bx - Ax 167							
37	400	363	296	Oma		Dl	Open 39-59 Sed Br 62-66 V Abu Sgs 65-66 Sc Sgs 68-70							
							Ce Chips 70 6" Blu Ce 72 Sed Br 78-83 Abu Fi Sgs 81-82 Ry Dike w/Ks							
							in DK Dl 92-101 Open 104-105, Frg 114 Open, Soft Rk 115-125							
							Ce 128 Sed Br 132-135 Sc-Bnd Sgs 132 Bnd Sgs 145 Sc Bnd							
							Fi Sgs 147-149 Hvy Ce 159-162 Sed Br 165-167 3' Wh. Ce 167-170							
							Sc Sgs; Ce Chips 170 Ce Mtx Sgs 193 Ra Crs Sgs below 2' Rex In 196							
							Bu Dl w/ Ce Nds 201-205 Ce Sed Br 215, 224-227 V Abu							
							Crs Sgs, Ce Pebs 251-252 Open 256-261, 268-274, 295-							
							298 Frg, Fa? 299 DK Dl w/ Sky Ptgs 299-313 Ce 313							
							Ce Mtx Sgs 317-318 Lost hole, went Back in & recored							
					Ce Mtx		317-318 Sand @ 323 Abu Sgs, Ce Chips 327-328 Ax-Ex							
					Lacking		329 Abu So Sgs 376-378 Bu Dl w/ Ce Nds 400-408							
400	551	151	132	OK	400 Est.	Dl	Open 410-411 Oo Ce 442 Fi Dl w/ Ce Nds 434-435 Sc-							
					U-255		Bnd Sgs 467-468 (U-255) Sgs, Grn Sh 470 Open 497-							
					468		498, 504-506, 513-515, 526-532, 534-537, 544-546	Sc Trs Sp 524-525						
551	656	105	81	OK	TR	Dl	548-551, 554-558, 582-588 Sgs 569 (A?) Sed Br							
					551		562-592							
					E?									
					585		Fi Grn Dl 592-595 (E?)							
							OPEN 592, 595-600, 601-603							
							V Crs Rex In Dl (S Bd Type) 603-614	Tr Py 614						
							5' Dl w/ Ce Nds 618-622	Tr Sp 655, 656-661						
656	661	5	5			Dl								
661	687	26	25			Dl	Ce Nds 661-666, 675-676 Fi Dl 675-678 Wh. Ce Nd	Sc Trs Sp 661-667		656	661	5'	4.47	% Zn
							684 Fi Dl w/ wh. Ce Nds, Abu Crs Sgs @ Base 687-697							
687	697	10	9					St Py 702, 703 Sc						
697	725	28	20				Ce Peb Cgl 702	Py 706-708, 714, 717-719, 722-725						
		Bottom	725				R & S Bds 100% Dolomite							

THE NEW JERSEY ZINC CO.

LOCATION Copper Ridge Belt
Sector II
Big War Creek Area
PROPERTY Annis Helton (NJZ M&M)

Sec C-1395

HOLE NO. BW-48

ELEVATION 1581.15

STARTED 8-28-58 BOTTOMED 9-19-58 LOG BY E.W.R. COORDS 60,774.65 N; 30,460.91 E

SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	5	5	–			RC	NX-BX 10 BX-AX 14				
5	112	107	90	Ocr		LS?	Open 60-61 6" Brn Calcite 60 Lo Frq, Hi Arg Fag 90-120	Fr w/Dol & Blb Sp 90,100			
112	827	715	576	Owa		DI	Wh Ce 121-122, 207 Sed Br, Ce Frag Zo 240-244 Red Strat DI w/Ce Pebs 295-296 Vert Frq 367-269 Fa Zo w/ Mylo 309-314 Bnd Sgs in Strat 385 Abu Bnd Sgs 418 Fa 433-65° Fa 494 Abu Fl Sgs 517 Wh Silic 520-522 Ce Mtx Sgs, Abu Wh Ce 547-549 Abu Sgs 582 Sgs 594 2" Grn Sh 599-601 Abu Sc Sgs 623 Sc Sgs, Silic 627 Cat Rx 629-631 633-635 Abu Sc Sgs in DK Mat DI 670 Sed Br 688-691 Bnd Sgs 691-692 8" Wh Qtzt 697-805 Abu Sc Bnd Sgs Ce Pebs over Rex in 732-733 Ce Mtx Sgs w/Ce Nods 790				
					Ce Mtx 821		Ce Mtx w/Sc Sgs 821 Fa Frq 767-795 Frq 802-812 Mylo 816-817 App Dip on Fa 70°-80°				
827	1013	186	130	OK	Brn Ocr 819	DI	Sc Sgs 835 App Dip 43° 860 Vy Abu Sgs, Ce Mtx 873-875 Oc Ce 879 Bl 889-910 6" Mylo 60° Fa 911 Mylo Fa 872 Bnd Sgs in Ce Mtx, Ce 918-922 Sc Cis Sgs 928 Sc Sgs in Bi 940 Hi Ce 952-953 Sc Sgs above Grn Sh 964 Ce Nds Zo 980-988 Frq 1006-1008 Cis Sgs above Grn Sh 1013	Bi Xlns w/Bnd Sgs 918-920 Tr Sp 945 Sh Sp 965-966 Sc Sh Sp 990-998			
1013	1061	48	37		TR 1053	DI	Sgs 1015, 1017 Ce Nd Zo 1020-1022 Grn Sh 1046, 1057, 1050				
1061	1128	67	58			LS	Ce in LS 1109-1114				
1128	1145	17	15		J Sgs 1145	DI	Fi DI w/Ce Nds 1128-1132 Abu Ce 1142-1145 Ce Br				
1145	1174	29	22		1148 T.Bd.	LS	Abu Cis Sgs 1148 Sgs w/Bl Sh 1173				
1174	1179	5	4		1174-1179	DI	Fi Xln DI				
			Bottom		1179		Red Beds 42% Dolomite				

THE NEW JERSEY ZINC CO.

LOCATION: Copper Ridge Belt, Sector II, Big War Creek Area

PROPERTY: George Amyx (NJZ-M&M)

Sections: C-1395, C-1419

HOLE NO. BW-49

ELEVATION 1602.11

STARTED 9-20-58 BOTTOMED 10-16-58 LOG BY EWR COORDS. 60,840.42 N; 30,860.59E

SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		Core Recovery	% Zn
0	3	3				RC	NX-BX-10 BX-AX-40 OPEN 18-25							
3	258	258	227	Oca		LS,	Oh Type P Marble 34-90 Ol Type 85-124 Oh Type w/Sc Ol Type							
						F, Ol	124-184 F Dk Mot Dl w/Ce 184-188 Ol Type Ls 188-214							
							F Grn Dl 214-218 Frg 223-229 Ol Type Ls 218-236 F Dk	St Pyr in Wlo						
							Dl 236-242 Oh Type Ls 242-251, 255-258	990-975						
258	992	739		Oma		Dl	V St Hi Ang Fr 266-267 Frg 273 Ce Br 288-294 Rex In Dl	983-991 (Est 3% Zn)						
							306-309 Sc Sgs Ce Frg, In B, Stat 336 Sed Br 342-345	Tr 1008						
							Ce 347 Bu F Dl w/Ce Nds 351-355 Rd Mot Dl 366-368							
							Hvy Ce 381 App Dip 45° @ 397 Lt Bu Dl w/Ce Nds below Sgs			1042	1047	5	2'	Est. 3%
							412-416 Mot Rex In Dl 423-428 Dk Dl w/Sh Pgs 439-442							
							Lt Gy Mot Dl 447-453 Rd Mot 460-464 V Crs Sc Sgs 470		10424	1144	1154	10	5'	1.43
							477 Abu Sgs 513 Sc Crs Sgs 521-522 App Dip 50° @ 523		10425	1154	1160	6	3'	2.28
							Abu Crs Sc Sgs 540 Rd Mot Dl 551-560 Th Grn Sh 556 Inter		10426	1160	1164	4	4'	1.80
							Shat 561-562 Rd Mot Dl 564-576 1" Mylon 579-585 Frg		10427	1164	1170	6	3'	1.92
							608-610 Fr Zon Mylon 614-616 Abu Sc Sgs 647-648 Frg							
							656 Ce FRR 664-665 Sc-Bnd Sgs 18 Stat 679-679 Mylon							
							692 Ce Mix 712 Frg 712 Bnd Sgs 715 Dl Ang Fr w/		Weighted Average					
							Mylon Frg 716-724 Abu Sgs w/Frg 724 Dl Mix Frg			1144	1170	26'	17'	1.80
							730-737 Sc Sgs 753 Sgs Grn Sh 757 Abu Sgs above 1 Grn Sh							
							761-762 Frg, Mylon 765-774 Frg 774-796 Abu Sc Sgs w/Ce							
							Nds 782-783 Sh-Ce Br 796-798 Dk Dl w/Frg 810-821							
							Frgs, Intense Mylo 831-905 Sgs 889 Crs Sgs 912 Sc Sgs 920			1239	1246	7'	5'	2% Est
				Sc Ce Mix	Intra Zo		Mylon 936 Ex Zo Mylon 947-980 Ce Mix Sgs In Mylon Zo 980-							
				980-997			983 Ce Mix 997							
							Ce Mix Sgs 1018 Sgs 1022 Frg 1024 Crs Sgs Ce 1036 Hi Ang	Tr Sp 1024, 1047,						
997	1042	45					Frg 1037 Hi Ang Mylon 1060-1062 (Mineralized) Abu Crs Sgs	1048, 1049 Sh, 1052						
							1049-1052	Shis Sp 1061-1062						
1042	1047	5	2'			Min.	Mineralized	Tr Sp 1063, 64, 65						
1047	1144	97				Dl	Brn Oc Ce 1053-1054 Hi Ang Fr Zo 1065-1085 Ce Nd Zo 1071							
							1082 Crs Abu Sgs 1096-1100 Crs Bnd Sgs 1106-1107 1109 St Frg, Mylo 1117-1164							
1144	1170	26	17'			Min.	Mineralized Sgs 1122, Sc Crs Sgs 1136							
1170	1207	37			TR	Dl.	Abu Crs Sgs 1150 Abu Sc Bnd Sg 1157 Br 1174-1190	Shi Sp 1185 Shi Sp,						
					1207		Abu Crs Sgs 1198 Sc Grn Sh 1217-1229	Pr 1207 St Shi B						
1207	1380	173	145			Dl		1110 Tr Sp 1112-						
							Sc Sgs 1310 Lo Sed Br 1272-1329 Sc Sed Br w/Sgs	1113 Sc Tr Sp 1170-						
							1346-1363 F Dl 1363-1367	1214 St Shi 1224-						
								1225 St Sh 1239-1240						
	Bottom	1380					R & S Bds 100% Dl	Tr Sp 1248-1259						

LOCATION Copper Ridge Belt
Sector II
Big War Creek Area
PROPERTY Annis Helton (NJZ-M&M)

THE NEW JERSEY ZINC CO.

Sec. C-1412

HOLE NO. BW-50

ELEVATION 1488.75
COORDS. 60,987.90 30,104.82

STARTED 10/18/58 BOTTOMED 10/31/58 LOG BY EWR-ADH
SHED NO C-1 DISCARDED
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES CMP NO	FROM	TO	% Zn
0	411	411	398	Oma		DI	NX-BX 10 BX-AX-30					
							DK DI w/Shy Ptgs 18-28 Abu Sgs 33 Co Ce 51 Wh Ce 51-54 Sc Sgs 66-68 Wh Ce 74, 107 2" Abu Sgs 110 Sc Sgs → Ce Mtx 112 Ra Sgs 115 Sc-Bnd Sgs 120 Ce Nds w/Ra Sgs 138-139 Abu Sc Sgs → Ce Mtx 152-153 Sc Sgs 20 Grn Mot DI 159-161 Sc Sgs above Grn Sh 165-167 1' Bu DI w/Abu Sgs @ base Abu Sc-Bnd Sgs in Brn DI → Ce Mtx → Ce 186-188 Wh Ce 195 Sgs in Grn Sh 198-200, 201-202 Sed Br w/Grn Sh, Ce, DI Frags 202-203 Wh Silic w/Sgs DK DI w/Acs 229-235 Bdng Pl Fa 236 Hi Ang Frs 252 Abu Fl Sgs over Grn Sh 262 Blc F DI 276-281					
					15 Sgs 358 Ce Mtx		Wh Silic 290-295 Sm Hi Ang Fa 296 Ce Nd Zo 318-321 Abu Sc Sgs, Ce Pebs above Grn Sh 357-358 Sc Sgs 372 Fa Zo w/Mylo 381 Frng 381-389 Fa w/6" Mylo 401 Ce Mtx 411					
411	573	162	141	OK	41h Bm Co	DI	Ra Sgs 412 Abu Sc Sgs 420 Abu Sgs in Strat 431 Vf Abu Sgs 453-455 Ce Nod Zo 480-485 Bnd Sgs w/Pebs 487 Sc-Bnd Sgs, Ce Mtx					
573	601	29	27	OK	465 U-235c 187 TR? Bottom of Upper OK		512-515 6" Grn Sh 519 Sed Br 521-523 Sc-Bnd Sgs w/Ce Mtx 554-556 Sc Sgs 567 Fa w/Mylon 574 Br w/Wh Gangue Dol 582-585 Sc Sgs, Ce 595-596 Abu Sgs 598 Silic DI 599-600	Sc R 579-580 Tr Sp 583, 588 Sc Tr Sp 591-593 Tr Sp 595 Sh Sp 597 Tr Sp 598, 617	10482 10483	601 606	606 611	1.43 1.43
601	611	10	10		573	Min	Est 2% Zn Wh DI Br Filling - Fl Gr DI					
611	676	65	64	"R"?	?	DI	Sed Br Zo Fl Gr DI 656-676 "R" Bed Type Sed Br Lo Sc ZnS Sc-Sgs 673	622 Sh Sp 634-636 Est @ 5% Zn				
676	714	37	39			LS	Ls					
714	723	9	9			DI	Vf Fr Zo	Sh Sp 641, 649-654				
723	746	23	23			LS	1/4" Crs Bnd Sgs in Ls 725 Blu Ce 729	Tr Sp 655, 659				
746	755	9	9			DI	Sc Sgs 752 Fl DI w/Ce 755-757					
755	771	16	12			LSM						
					Tbd	Ra I DI	Abu Crs Sgs w/Lo Br 771-778 2' Fl DI 778-780					
771	801	30	30		778-780	DI	Crs X In DI w/Lo Br 771-778 2' Fl DI 778-780					
		Bottom 801										

Note: No TR - Lith Break - Fl DI to Br w/Dol

"R" 45-70% DI

THE NEW JERSEY ZINC CO.

Sec. C-1412

HOLE NO. BW-51

LOCATION Copper Ridge Belt
Sector II
Big War Creek Area

PROPERTY Annis Helton (NJZ-M&M)

STARTED 11/3/58 BOTTOMED 11/17/58 LOG BY ADH-EWR

SHED NO. DISCARDED

ELEVATION 1491.19

COORDS. 61,076.53N ; 30,049.64

BRG INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO		
0	1	1	—			RC	NX-BX-10 BX-AX-20						
1	320	319	293	Qma		Dl	1/2 Sgs 34 7" Sgs w/Dl, Ce Peks 42 6" Sgs 51 Ce over 2" Grn Sh, Ra Sgs 55 Ra Sgs over Grn Sh 59 Ce Nods in Fa Dore Dl 70-76 St Sgs w/Tr Ce Nod 81-82 Sed Br 86-93 9" Sgs, Frags in Lt Grn Sh 94 Fl Sc Sgs in Mx Sh 107 30° Fa @ 127 5" Sgs Below Ce 140 Fl Sgs above 2" Grn Sh 155 Sgs in Fa Dl Below 2' Br Mat over 3' Gy St 172 Sgs 175 Ce 180-181 Wh Ce 188-190 Sgs, Ce Chips 194 9" Sgs in St at 213 Wh Ce 215-219 Sc Sgs 242-243 Abu Sc-Bnd Sgs w/Ce Peks @ base 263-265 Sgs 280 Mylon, Frag 289-292 DK Dl 308-317 Sgs, Ce Mrx 320						
					45 Con 265 Ce Mrx								
320	512	192	168	OK	320	Dl	Sc Sgs 322 Abu Sc-Bnd Sgs 365 Vf Abu Bnd Sgs 375-377 Ce Nd Zo 399-402 Grn Sh 417 Ce Nd Zo 419-423 Abu Sgs, Ce Mrx 426-430 Sc Sgs 441 Sc Sgs over Hvy Ce 449-456 Grn Sh 452, 465	Ra Sc Trs Bj in Dol 471-478 Sc tr Sp		509	525	16'	1/2% Zn Est
					TR?								
512	662	150	150	OK	512	Dl	Fa Zo w/Mylon 473-474 (Bd Pl Fa?) 6" Mylon 484 Lo Sed Br 528-533, 542-563 Ra Sgs 542 Sed Br 606-652	509-525, 539-541 Sc tr Sp in Wh Dol 606-616					
662	675	13	12			LS	Sgs 670						
675	700	25	19			Dl	Sgs 691 Hi Ang Fa w/Mylon 675						
		Bottom	700				R&S Beds 92% Dl						

LOCATION Copper Ridge Belt
Sector II
Big War Creek Area
PROPERTY Annis Helton (NJZ-M&M)

THE NEW JERSEY ZINC CO.

SECTION C-1412

STARTED 11/18/58 BOTTOMED 12/5/58 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. BW-52
ELEVATION 1487.17
COORDS. 60,902.89N ; 30,159.46E
BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	2	2	—			RC	Wx - Bx 10 Bx - Ax 20				
2	509	507	457	Oma		Dl	Ra Bnd Sgs 12 Sc Sgs 22 Ra Bnd Sgs 46 Ra Sgs 79 Ra Bnd Sgs w/ Pebs 91 Sc Sgs 97 Sc Crs Sgs 97, 101 Ra Sgs 117 6" Ce Mtx Ss 147 Hvy Whi Ce 163-165 Sc Sgs, Ab Frat 179-181 1" Ce Mtx Ss 227 40° Fa 244 1/2" Bnd Ce Mtx Ss 245 Abu Bnd Sgs 258 Abu Sc Sgs 264-265 over 3" Bl, Whi Ce Sc Sgs 268 12" Bl-Grn Sh 272-273 1/4" Sgs over 6" alt Ls 274 Ce Mtx Ss over Oo Ce 289-290 Blk Sh 298 Abu Sc Sgs → Hvy Bl Ce 304-306 Sc Sgs 317-318 Frng Fa? 334 Sc Sgs 345 1" Bu Fl Dl 358-359 Dk Brun Dl w/ Pe's 367 372 Bnd Sgs 374 Fl Brun Dl w/ Ce Nds 382-384 2" Grn Sh 388 Sgs over 2 Rex In 409 Abu Sgs Ce Pebs 457 (over 3' Fl Brun Dl) w/ Hvy Bl Ce Nds 460 Sgs, Dl Frags, Pebs 467 Ce Mtx Ss 509	Th Bnd Py, Bo			
					Ce Mtx						
509	689	180	158	DK	509	Dl	Sgs 527 (Sh), Sc Fl Sgs 539 Ra Sgs 544 Sgs 546 Oo Ce, Dl Frags 562 Sgs 561, 566 Sed Br Zo w/ Sgs in Mtx 561-631 45° Fa @ 591 Hy Frng Frng (Wx) 619 Crs Sgs 649 Br w/ Whi Gangue Dol 638-658 Grn Sh 671, 686, 689	Tr Py 544, 547 Sh Py 555, 612 TR Py 630			
					TR						
689	743	54	43		689	Dl	Sgs 690 Grn Sh 716, 721 Sc Sed Br 689-728				
743	805	62	56		E	Ls	1' Dl 775 Sc Frags Dl in Sh Con 775-786				
					739-743		H? 735				
805	820	15	12		I	Dl					
					807-810						
820	848	28	21		J Sgs 834	Ls	Abu Sgs in Ls 834				
							Bottom 848 R&S Bds 44% Dl				

LOCATION Copper Ridge Belt
Sector II
Big War Creek Area
PROPERTY George Amxx (NJZ, M&M)

THE NEW JERSEY ZINC CO.

Section C-1421

STARTED 12-9-58 BOTTOMED 1/7/59 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. BW-53
ELEVATION 1659.13
COORDS. 61,125.80 N 30,935.00 E
BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO
0	40	40	–			RC	NX-BX 45 BX-AX 50				
40	171	131	128	Oca		Ls	Grn Sh w/Ls Below, Dl Below 125				
171	820	649	619	Oma		Dl	2' Grn Sh 178-180 Ce NdZo 263-267 2' Grn Sh 308 Ce NdZo 367-370 Sc Sgs in Mx in Dl 474 Thin Bnd Sgs & Ce Peds 481 Ra Sgs 485 Sc Sgs 493, 500 Red Dl 514-516 Abu Bnd Sgs in Strat 528 Ce + RK 544 Abu Sc Sgs 560 2' Silic Dl 570 572 2' Ce 580, 596 Fl Sgs over Grn Sh 599 Bnd Fl Sgs 601 Th Bn Sgs 609 Sc Bnd Sgs 627 Sc Sgs 639-640 Abu Sc Sgs 647 Abu Sc-Bnd Sgs 676 677 Ce Mix over Abu Sgs w/Ce 688-690 Ce Nd Zo 690-693 1" Int Fg 721 3' Mn Ce w/Conc Struct 759-762 Grn Sh 771 Sc Sgs. Wh				
820	898	78	94	Oma		Dl	Ce Frags 775 Abu Fl Sgs 790 1' Silic Dl 819-820 Fg 870-6"				
					Ce Mix		Ce Mix Sg → Abu Sgs 898	Tr Sp 1071, 1067			
898	1052	154	151		898	Dl	Abu Sgs 908 Bnd Sgs in Strat 918 3" Bun Ce 943 Abu Crs Sgs 952 953 Ce Nod Zo 975-982 Sg in Dist Strat 981 Ce, Sed Br 1000 Crs Bnd Sgs 1005-1007 Th Bn Crs Sgs Strat 6" Grn Sh → Lt Grn Ce Sc-Bnd Crs Sgs 1018 Sgs 1020 Fg 1023 Ra Sgs 1027 Se Sgs 1035 1' Ce 1036-1037 Grn Sh 1043 Grn Mot	Sh Pg 1083-1094			
					U-255						
					981						
					LR						
					1035						
					TR		Dl 1048-1052	Trs dissem Sp in Sh			
1052	1209	157	149	OK	1052		Hi Mg Fo w/Mg Sp 1071-1082 Grn Sh 1077 Sed Br 1093-1096 Sgs 1097 Sed Br 1100-1102 Sed Br 1148-1208	Trs Sp in Br 1073 1125 Sh Trs Sp 1183 Trs Pg 1211			
1209	1211	2	2	Qtv	T-Bed 1209-1211	Dl	Fl Dl w/Ce Nds (T-Bed) 1209-1211				
							Bottom 1211 R&S Beds 100%				

LOCATION Big War Creek Area
Sector II
Copper Ridge Belt

THE NEW JERSEY ZINC CO.

Section C-1421

HOLE NO. BW-54

PROPERTY NJZ M&M Amyx Surface

STARTED 1/8/59 BOTTOMED 2/5/59 LOG BY EWR

SHED NO. DISCARDED

ELEVATION 1607.23
COORDS. 60,950.34N 31,046.59
BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL NO	FROM	TO			
0	2					RC	NX-BX 10 BX-AX 20							
2	346	344	318	Oca			Holston Marble, Lenoir & Mosheim ls Grn Sh 343-346							
346	1023	677	620	Oma	45 Cg? 981	DI	Fi Gy Dol Lo Rd 379-383 Shat Fi DI w/Ce Frags 428-432 Strat 511-513 Sc Sgs 543 Sgs above Grn Sh 615 Sgs & Bl Sh 619 Wk Frng 621-625 60° Fa 636-639 Sgs 645 DK Gy Shy DI 664-671 Wh Ce 692-693 DK Mot 699-700 Sgs in Strat 706-707 Ce Mtx 739 Grn Sh 741 Bn Sgs 767, 793 Sc Sgs 818 Sgs w/Ce Chips 822 Abu Sc Sgs w/Ang DI Frags → Grn Sh w/Sgs & Pebs 824-825 Grn Sh 829 Sc Sgs 833-834 Low Ang Fa 856 Sgs below Strat 879 Bnd Sgs 892 Abu Sc Sgs 894 Abu Hvy Ce 899-901 Sgs w/Pebs 933 Wh Ce 938 Sc-Abu Sgs w/Pebs → Ce Mtx 979-981 Wh Ce 981-985 Ra Sc Sgs 985-986 Frng 994-996 Wh Ce Mtx Sgs 1023	WK Tr Sp 1235 1238 Sc Tr Sp 1260-1280 Str Shi 1278 @ 1280-1283 Shi Sp 1343 Tr Sp 1344, 1354 1356		1280	1283	Est. 3% Zn	
					~~TR 1206~~ Ce Mtx									
1023	1206	183	152	OK	1023 Brn Do 1076 u-255 1102 TR 1206	DI	Sc Sgs 1024 Abu Sgs 1032, 1044 Wk Hi Ang Fa 1056 Abu Sc Bnd Sgs over Grn Sh 1062 Nu Sgs 1072 Oo Ce 1076 Sc Bnd Sgs w/Ce Chips 1102 Ra Sgs 1114 Abu Bnd Sgs 1123-1126 Ce Sed Br 1126-1130 Abu Sc Sgs 1136, 1138 Abu Sc Sgs 1149 Grn Sh 1163 Mot DI 1204-1206							
1206	1244	38	33	OK		DI	Grn Sh 1212 Ce & Ra Sgs? 1213 Grn Sh 1223							
1244	1246	2	2			Ls								
1246	1296	50	46			DI	H. Ang Frng 1251 Crs Xln DI 1283-1296							
1296	1321	25	21			Ls								
1321	1365	43	24	OK		DI	Hvy Ce 1321-1322 Ra Sgs 1338 Crs Xln DI 1338-1365							
1365	1380	15	9	Olu?	T Bd? 1365-1372	DI	Fi Xln DI w/Ra Ce Nods Abu Sgs in Crs Xln DI @ base							
1380	Bottom													

R & S Bds 83% DI

LOCATION Copper Ridge Belt
Sector II
Big War Creek Area
PROPERTY N.J.Z M&M Amyx Surface

THE NEW JERSEY ZINC CO.

Sec. C-1421

STARTED 2-6-59 BOTTOMED 3-13-59 LOG BY EWR
SHED NO. _____ DISCARDED _____

HOLE NO. BW-55
ELEVATION 1585.12
COORDS. 60,779.88 N ; 31,146.49
BRG. _____ INCL. ∠

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	547	547	517	Oca		Ls	NX-Bx-10 Bx-Ax-40	
							P. OH Type Marble 257-277 Flow Struct or Frng 359-362 Ce,	
							Sed Br (Cg on Oca-Oma Surface) 508-513	
547	1230	683	571	Oma		Dl	Hi Ang Frng, Fa 599-601, 605 Dl Peb Cg 606 Sgs @ Irreg Ct	
							between Dk Gy Strat, Lt Bu Dl 639 Bu Dl w/Abu Ce, Frs 639-646	
							Thn Bnds Sgs w/Ce 716 Mylon 732-735 Frng 735-736 Sc Sgs 744 Mylon	
							746 Ra Sc Sgs 752 Abu Ce Chips → Sgs 771-772 55° Fa 822 Mylon Zo	
							822-824 Frng 833-834 Ra Bnd Sgs 837 Sc Bns Sgs 870 Ra Sgs 886	
							Sc-Bnd Sgs 898-901 Frng 909-910 Sc Sgs Loc Abu 940-941 Ra Sgs	
							945 Wk Frng 951 Sgs 966 Ra Sgs 973 Frng 984 Bnd Sgs 987 Frng,	
							Fang 988-992 Grn Sh-Dl Br → 3" Grn Sh 995-996 Grn Sh & Cr	
							Sgs 1025 Grn Sh w/Lo Sgs 1026-1028 Abu Sgs 1034 Frng 1051-	
							1052 Mosaic Br 1053-1056 Frng 1067-1069 Sc-Bnd Sgs in	
							Strat 1087, 1089 Ra Sc Sgs 1150-1152 Crs Sgs, Ce 1180 Frng 1191-	
					CeMtx		1208 CeMtx 1229-1230	
1230	1404	174	151	OK	1230	Dl	Sc Sgs 1239 Frng 1240, 1249, 1262-1265 Sc Crs Sgs in Frd	
							Dl 1270-1271 Crs Sgs, Dl Pebs 1276 60° Fa w/Mylon 1313	Sh, Sp 1328
					TR		Frng, Fa Zo 1340-1375 Br w/Wh, Ga Dol 1376-1382	
1404	1514	110	86		1404	Dl	Abu Frng, Fang 1397-1514 Abu Sgs 1424	Sc Trs Sp 1355-1362
1514	1538	24	13			Ls	Hily Frd, Fad	Tr Sp 1393, 1410
1538	1580	42	38			Dl	Mylon Zo 1539-1568 Abu Sgs 1569 Lo Wh, Silic 1572-	
							1580	
		Bottom		1580			R&S Bds 73% Dl	

ANALYSES SMPL. NO.	FROM	TO	Core	% Zn	
10323	1362	1367	5'	4.00	
10324	1367	1372	5'	2.18	
10325	1372	1378	6'	3.10	
10326	1378	1382	4'	1.63	
10327	1382	1387	5'	1.50	
	Weighted Average				
	1362	1378	16'	3.10%	Zn
	1362	1387	25'	2.48%	Zn

LOCATION Copper Ridge Belt
Sector II
Big War Cek. Area
PROPERTY N.J.Z. M&M Price Surface

THE NEW JERSEY ZINC CO.

SECT. C-1352

STARTED 3-16-59 BOTTOMED 4-2-59 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. BW-56
ELEVATION 1728.10
COORDS. 62,107.50N; 31,398.16
BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	51	51	—			RC	NX-BX-60 BX-AX 153 AX-EX 526 Open 70-80, 330-332, 485-489, 491-501, 502-511				
51	315	264	241	Oma		Dl	Irreg Ce 101 Bnd Sgs, Grn Sh 122 Sc Bns Sgs → Ce Mtx 135-137 Hvy Irreg Blu Ce w/Grn Sh @ Base 153-155 1' Wh Ce 163-164 Grn Sh @ Base 2' Strat 168 Abu Sc Sgs 185 Ce Nod Zo w/Wh Ce Nods 190-199 Wh Ce 217 Abu Sgs, Ce Pebs → Crs Ce Mtx 248-249 Bd Ce 254, 255 Lt Bu Dl 255-257 Ce Mtx Sg, Wh Ce 271-272 DK Dl w/Shy Prgs 298-310				
					CeMtx		Thn Ce Mtx 315				
315	526	211	146	OK	315	Dl	DK Dl w/Shy Prgs 316-322 Abu Sgs, Pebs 359 Ble Dl 361-371 Sc Bnd Sgs 371-374 Str Ble 389-399 Ce Nod Zo 399-402				
					BrnOo		Mod Str Ble 413-430, 448-456 Ce Nod Zo 420-428 Ra Sc Sgs 456				
					359		Open 485-489, 491-501, 502-511, 524-526				
					U-255						
					374						
					TR						
526	641	115	66	OK	526	Dl	M-Grn Dl w/Loc Wh Gangue, Num Openings 581-582, 584-585, 588-589	617'-618' Est. 4% Zn			
641	653	12	10			LS	Ra Sgs 650	639-641 Est. 2% Zn			
653	663	10	6			Dl					
663	695	32	25			LS					
695	705	10	8		TBd	Dl					
		705 Bottom									
		RE S Bds		74%		Dolomite			L-V	TR	

LOCATION Big War Creek

THE NEW JERSEY ZINC CO.

Sec. C-1352

HOLE NO. BW-57

ELEVATION 1713.57

STARTED 5/5/59 BOTTOMED 5/16/59 LOG BY EWR

COORDS. 61,999.35N 31,232.30E

PROPERTY NJZ M&M Bloomer Surface

FINISHED NO. DISCARDED

BRG. INCL. Vt.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO	%Zn		
0	54					RC	NX-BX64 BX-AX241 Open 216-221							
54	299	245	234	Oma		DI	CeMtx & Sgs 56 Sc Sgs 65 Bnd Sgs → Channel? Br 75-76 45° Fa 97 Frng 96-99 Abu Sgs → CeMtx 141-144 Hi Ang Fa 135 Cot RK 156-158 Sgs 161 Abu Bnd Sgs 179 Ce Nod Zo 186-189 Frng 191-212 Sgs 200 Fa 215 Fa Mylon 237-244 Abu Sgs & Ce Pubs 236-237 Sgs w/Ce Frags 258 Fa 279, 282 CeMtx 299	Tr Sp 492, 519, 521 Ox? Zn in Rex la 522-525 Shi Py 537	10256	529	533	3.63		
									10257	533	535	3.18		
									10258	538	540	1.96		
					CeMtx 299									
299	484	185	171	Oa		DI	Abu Sgs 307-308 Sgs @ base Strat 319 Sgs & CeMtx 339 Ce & Grn Sh 345 6' Bu DI w/Sgs @ base 345 -351 3' Strat w/Sgs 351-354 Dist Strat 402-404 6" Grn Sh w/Ce 410 Abu Sgs 418 Fa Zo 459-465 Ra Sgs 476 Sgs & Sh 484							
					LP? 470									
					TR 484									
484	544	60	54			DI	Sgs & Ce 488							
					"A" 488									
					"B" 492									
544	609	65	57			Ls								
609	621	12	10			DI	Ce 609-611							
621	645	24	22			Ls								
645	649	4	4			DI	Strat 645-646							
649	661	12	12			Ls								
661 (Bottom)														

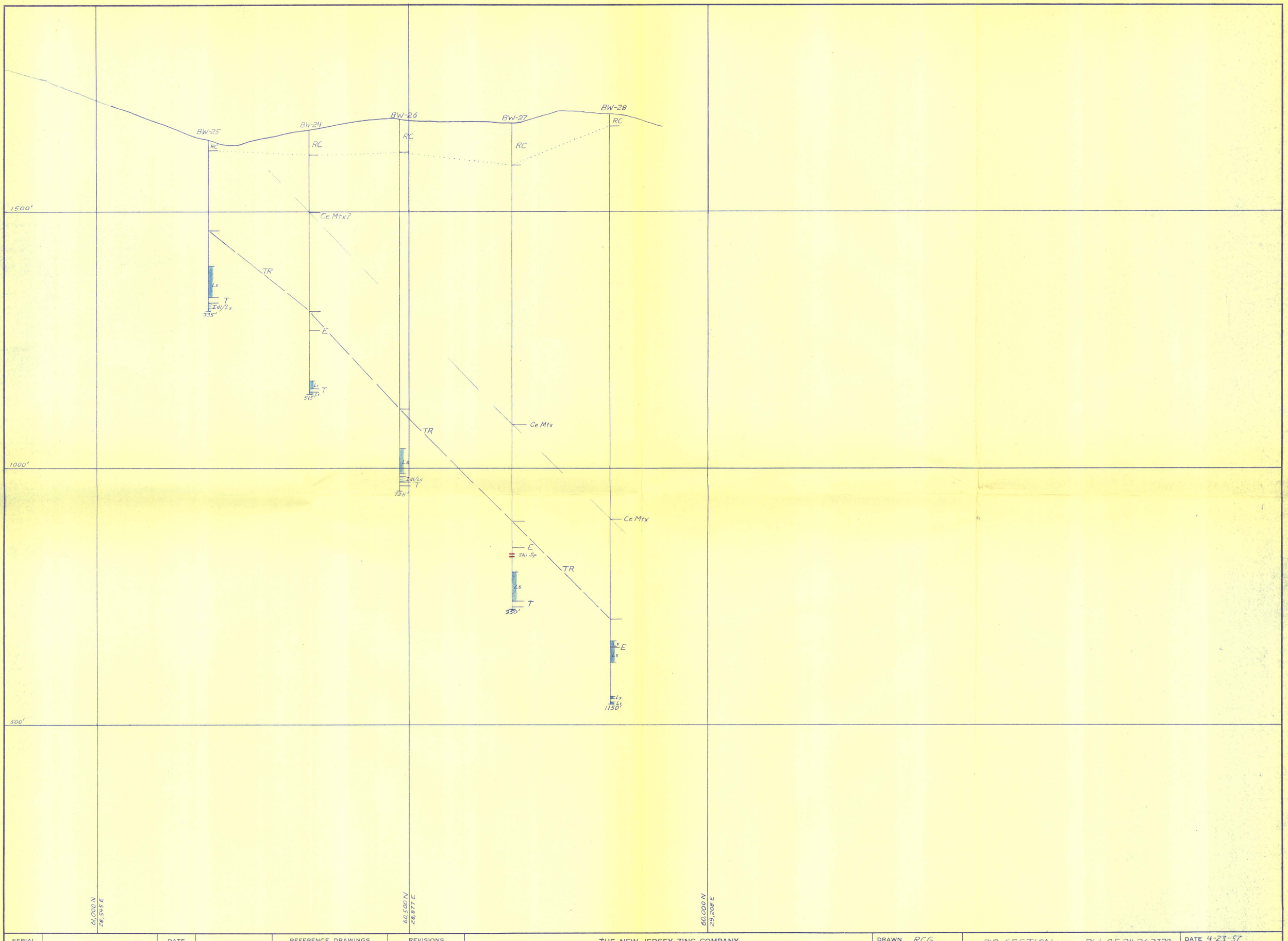
Weighted Averages

529 535 6' @ 3.48% Zn

529 540 11' @ 2.25% Zn

APPENDIX

DETAILED DRILL LOGS



SERIAL NUMBER		DATE ISSUED	

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REFERENCE DRAWINGS	REVISIONS

THE NEW JERSEY ZINC COMPANY

JEFFERSON CITY, TENNESSEE

DRAWN	RCG
TRACED	RCG
CHECKED	
APPROVED	

DIP SECTION BW-25,24,26,27,28
SECTOR II AREA D
COPPER RIDGE BELT

DATE	4-23-57
SCALE	1"=100'
	AX-TENN C-1263

X5453C 1M 11-54

SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS	THE NEW JERSEY ZINC COMPANY	DRAWN EWR	STRIKE SECTION BW-43, 41, 45, 47	DATE 4-8-58
							TRACED	SECTOR II AREA D	SCALE 1" = 100'
						JEFFERSON CITY, TENNESSEE	CHECKED	COPPER RIDGE BELT	AX-TENN C-1352
							APPROVED		

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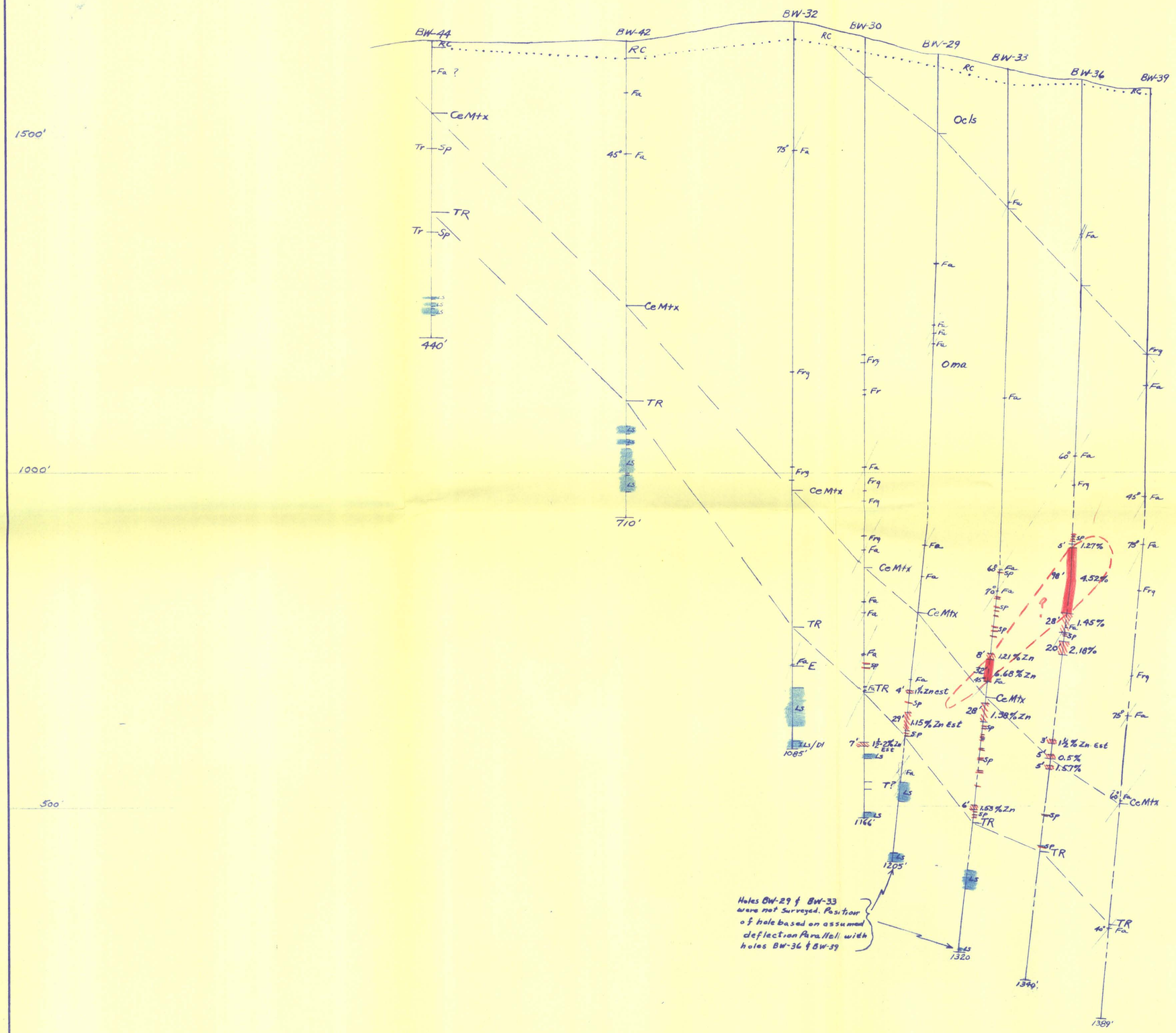
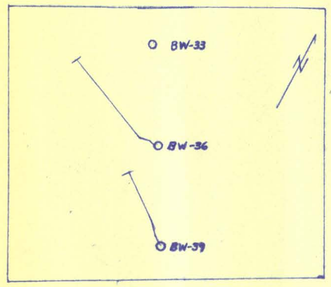
X5453C 1M 11-54





SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS

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THE NEW JERSEY ZINC COMPANY

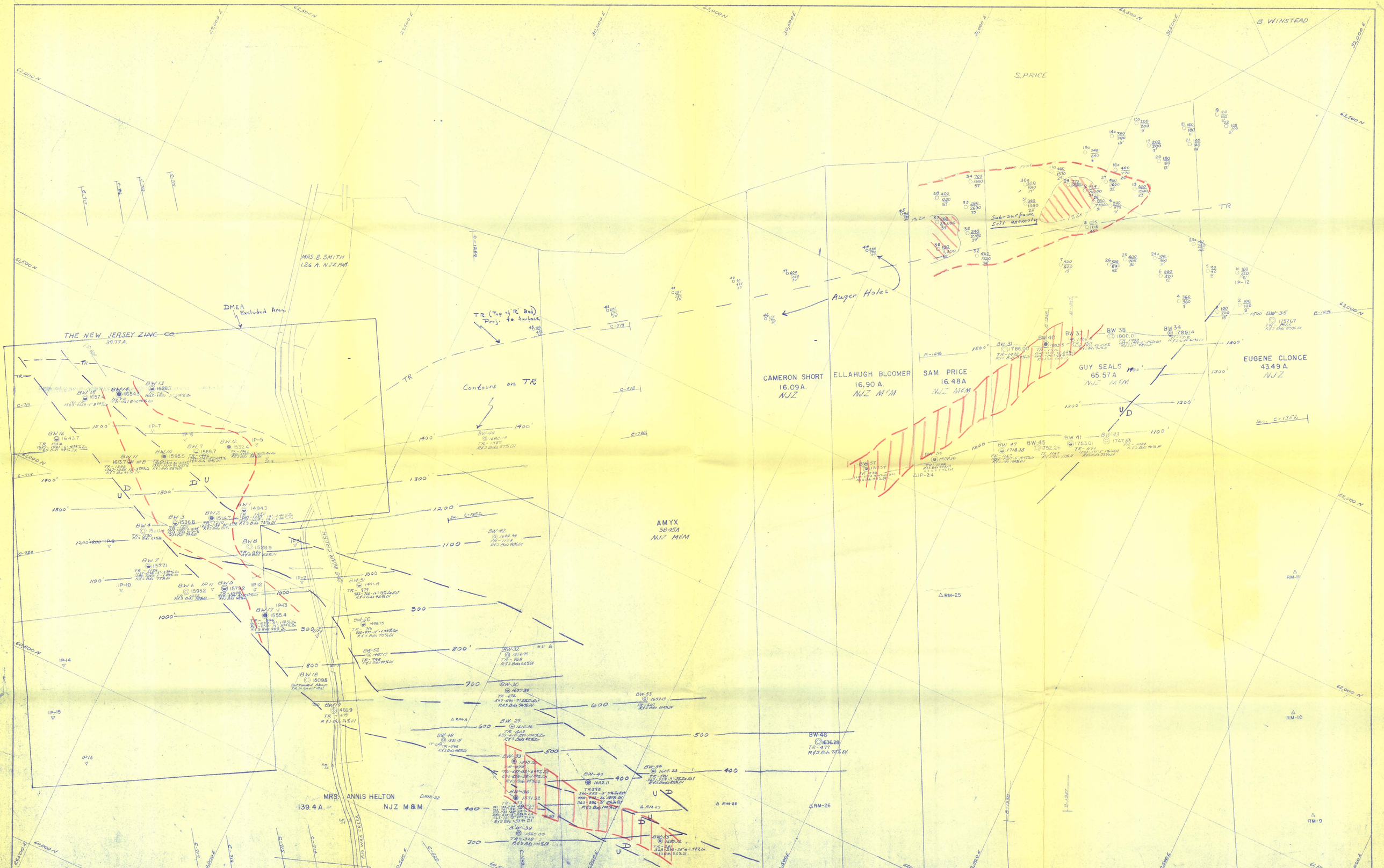
JEFFERSON CITY, TENNESSEE

DRAWN EWR
TRACED EWR
CHECKED
APPROVED

DIP SECTION
SECTOR II AREA D
COPPER RIDGE BELT

DATE 1-9-58
SCALE 1"=100'
AX-TENN C-1269

X5453C 1M 11-54



SERIAL NUMBER	DATE ISSUED	REFERENCE DRAWINGS	REVISIONS

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THE NEW JERSEY ZINC COMPANY

DRAWN LCJC
TRACED
CHECKED
APPROVED

DRILL HOLE MAP
SECTOR II
COPPER RIDGE BELT
AREA D

DATE 8-8-58
SCALE 1" = 100
AX-TENN 645