(1) B (3) C SHEET 2 OF 2 (1) F=0 ONT
(2) B. TORNADO PROJECT SUMMARY SHEET (2) F=0
(3) F=0

1. DATE AND TIME TUESDAY AUGUST 15, 1978 (1) 1600 EDT (3) 0130 EDT (2) 1600 EDT

2. LOCATION OR PATH (attach map)
(1) COLD CREEK CONSERVATION AREA TO VICINITY OF LLOYDTOWN (S-N)
(2) VCNTY MONO ROAD STN (SSW-NNE)
(3) SAULT STE MARIE

3. PATH LENGTH ☐ NOT KNOWN ☐ <1 mi; (2) 1-4 mi; (5) (1) 5-10 mi; ☐ 11-50 mi; ☐ LENGTH IF >50 mi

4. PATH WIDTH (1) 500-600 FT (3) 300-400 FT 5. TORNADO PART OF SQUALL LINE? ☐ YES; ☐ NO; ☐ UNKNOWN:

6. ANY UNUSUAL COLORATION? ☐ YES; ☐ NO; ☐ UNKNOWN

7. ANY UNUSUAL SOUND? ☐ YES; ☐ NO; ☐ UNKNOWN

8. IF ANSWER TO 6 OR 7 YES, ELABORATE;

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.)
(1) THUMBNAIL SIZED HAIL
(2) 4.5" rain measured in plastic raingauge mounted on fence. Small hail.

10. TOTAL DAMAGE ESTIMATE $ 11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE 13. TOTAL HOMELESS NONE

14. LIST ALL REFERENCES
(1) VISITED BY NEWARK & ELMS SAT AUG 19, 1978
(2) VISITED BY ELMS MON AUG 21, 1978.
KINGSTON WHIG STANDARD, AUG 17, 1978.
TORONTO STAR, AUG 16, 78.
SAULT STE MARIE STAR, AUG 16, 17, 1978.

15. SUMMARIZE REMARKS PERTAINING TO (a) FUNNEL; (b) INTERESTING OR CAPRICIOUS EVENTS.

1(a) rain too heavy round no reports of funnel.
2(a) no reports.

1(b) Farm equipment and machinery carried or pushed several hundred feet. At the farm of Art Richards (16R sideroad & 11R con King) a 5 ton forage wagon carried around a silo and deposited on a harvester. At Delmas (17R & 11R con King) a steel frame garage 75'x30'x20' pushed 5 or 6 ft off its foundation and collapsed onto a car. Barn roofing ripped off. Very few trees in the area but some broken trees noted.

2(b) Heavy farm equipment overturned. Barns damaged. Trees broken and uprooted. Glass broken outwards and a board (1"x9"x4') forced through roof.



GEORGIAN BAY ISLANDS NATIONAL PARK
GIANTS TOMB
BEAUSOLEIL
HOPE
BECKWITH
CHRISTIAN I.
TOLL FERRY
WHITE CLOUD I.
GRIFFITH I.
HAY I.
CAPE RICH
LYAL I.
Barrow Bay
Cape Croker
Hope Bay
Pike Bay
Howdenvale
Red Bay
Oxenden
North Keppel
Kemble
Oliphant
Wiarton
SAUBLE FALLS
Sauble Falls
Sauble Beach North
Sauble Beach
Hepworth
East Linton
Balmy Beach
Shallow Lake
Park Head
Sauble Beach South
Leith
Annan
Brookholm
Springmount
Alvanley
Allenford
Elsinore
OWEN SOUND
Woodford
Meaford
Sunnyside Beach
Bognor
Rockford
Kilsyth
Chippawa Hill
Southampton
Port Elgin
Tara
Keady
Keward
Chatsworth
Walters Falls
Arkwright
Burgoyne
Dobbinton
Desboro
Williamsford
Berkeley
North Bruce
Underwood
Paisley
Chesley
Scone
Mooresburg
Dornoch
Markdale
Irish Lake
Elmwood
Glammis
Pinkerton
Eden Grove
Cargill
Priceville
Chepstow
Hanover
Allan Park
Durham
Walkerton
Carlsruhe
Varney
Holstein
Greenock
Kinloss
Riverdale
Formosa
Mildmay
Neustadt
Ayton
Kinlough
Holyrood
Lucknow
Teeswater
Belmore
Clifford
Whitechurch
Lakelet
Lower Wingham
Wingham
Wroxeter
Gorrie
Harriston
Fordwich
Palmerston
Bluevale
Belgrave
Moleswortn
Kurtzville
Gowanstown
Brussels
Ethel
Listowel
Wallace
Moorefield
Drayton
Blyth
Londesborough
Cranbrook
Walton
Kinburn
Winthrop
Seaforth
Brodhagen
St. Columban
Dublin
Mitchell
Bornholm
Staffa
Cromarty
Fullarton
Newry
Atwood
Britton
Donegal
Monkton
Milverton
Newton
Poole
Rostock
Wartburg
Sebringville
Gads Hill
Amulree
Shakespeare
STRATFORD
STRATFORD FESTIVAL
St. Pauls Sta.
Kirkton
Woodham
St. Marys
Whalen Cors.
Granton
Prospect Hill
Unionale
Harrington West
Lakeside
Lucan
Elginfield
Wellburn
Medina
Kintore
Denfield
Birr
Bryanston
Thorndale
Thamesford
Ballymote
Arva
LONDON
Crumlin
Dorchester
Hyde Park
Delaware
Lambeth
Scottsville
Belmont
Glanworth
Lyons
Mapleton
Tilbury Royal
Lynhurst
New Sarum
ST. THOMAS
Sparta
Union
Fingal
Shedden
Port Stanley
Port Bruce
PORT BRUCE (NC)
IROQUOIS BEACH
Port Burwell
JOHN E. PEARCE (NC)
Vienna
Aylmer
Springfield
Corinth
Eden
Richmond
Calton
Straffordville
Summers Corners
Mount Elgin
Dereham Ctr.
Ostrander
Culloden
Tillsonburg
Courtland
Delhi
Otterville
Springford
Norwich
Burgessville
Salford
Ingersoll
Putnam
Harrietsville
Mossley
Verschoyle
Beachville
Folden Cors.
Holbrook
Embro
Perrys Lane
Huntingford
WOODSTOCK
Innerkip
Eastwood
Muir
Oxford Ctr.
Hickson
Tavistock
Cassel
Bright
Plattsville
Washington
Haysville
New Hamburg
Baden
Petersburg
Phillipsburg
Wellesley
Bamberg
Crosshill
Linwood
Millbank
Hawkesville
Macton
Wallenstein
Dorking
Glen Allan
Floradale
Yatton
Elmira
Conestogo
St. Jacobs
St. Clements
Heidelberg
WATERLOO
St. Agatha
KITCHENER
Mannheim
New Dundee
Doon
Blair
Preston
Galt
CAMBRIDGE
Hespeler
Freeport
Breslau
Bridgeport
Bloomingdale
Maryhill
Winterbourne
W. Montrose
Elora
Fergus
Salem
Alma
Goldstone
Inverhaugh
Ariss
GUELPH
Arkell
Aberfoyle
Puslinch
Morriston
Little Lake
Freelton
Kilbride
Carlisle
Flamboro Centre
Waterdown
Millgrove
Clappisons
Rockton
W. Flamboro
Westover
Peters Cors.
Branchton
Sheffield
Ayr
Wolverton
Drumbo
Paris
Princeton
Gobles
Bishopgate
Cathcart
Harley
BRANTFORD
Burford
Scotland
Oakland
Wilsonville
Mt. Pleasant
Kelvin
Vanessa
Teeterville
Boston
Waterford
Bealton
Springvale
Villa Nova
Garnet
Windham Centre
Simcoe
La Salette
Jarvis
Nixon
Renton
Atherton
Lynedoch
Wyecombe
South Middleton
Langton
Walsh
Silver Hill
Vittoria
Port Dover
Port Ryerse
Fishers Glen
Normandale
Turkey Point
TURKEY POINT
TURKEY PT
Long Point Bay
Port Rowan
Long Point
LONG POINT
LONG PT.
St. Williams
Walsingham
Forestville
Cultus
Fairground
Clear Creek
Glen Meyer
Frogmore
Cheapside
Fisherville
Rainham Ctr.
Selkirk
SELKIRK
Nelles Cors.
Decewsville
Hagersville
Cayuga
S. Cayuga
Dunnville
Byng
Port Maitland
ROCK POINT
Stromness
Willow Bay
Lowbanks
Canfield
Attercliffe Sta.
Moulton
Wainfleet
Canboro
Wellandport
Caistorville
Caistor Ctr.
Empire Cors.
York
Caledonia
Onondaga
Middleport
Ohsweken
Willow Grove
Cainsville
Langford
Lynden
Copetown
Ancaster
Alberton
Duff Cor.
Carluke
Mount Hope
Binbrook
N. Seneca
Blackheath
Woodburn
Smithville
Campden
Vineland
Vineland Sta.
Beamsville
Grimsby
Grimsby Beach
Winona
Stoney Creek
HAMILTON
Dundas
BURLINGTON
Bronte
BRONTE CREEK (NC)
Oakville
Palermo
Lowville
Zimmerman
Campbellville
Moffat
Milton
Milton Heights
Omagh
Hornby
Speyside
Ashgrove
Brookville
Haltonville
Eden Mills
Rockwood
Acton
Stewarttown
Georgetown
Limehouse
Glen Williams
Terra Cotta
Norval
Whaleys Cor.
Churchville
Meadowvale
Huttonville
BRAMPTON
Streetsville
Erindale
MISSISSAUGA
Port Credit
Lorne Park
Clarkson
Sheridan Park
Snelgrove
Claireville
Malton
Bramalea
Cheltenham
Terra Cotta
Ballinafad
Inglewood
Belfountain
Cataract
Forks of the Credit
Erin
Hillsburgh
Orton
Belwood
Marsville
Alton
Caledon
Sandhill Jct.
Claude
Victoria
Caledon East
Mono Road Sta.
Wildfield
Tullamore
Woodbridge
Kleinburg
Nobleton
King City
Oak Ridges
Aurora
Newmarket
Snowball
Kettleby
Schomberg
Lloydtown
Pottageville
Palgrave
Mono Mills
Glen Cross
Orangeville
Laurel
Camilla
Mono Centre
Hockley Valley
Primrose
Violet Hill
Rosemont
Tottenham
Loretto
Colgan
Beeton
Alliston
Everett
Nicolston
Newton Robinson
Bond Head
Bradford
Holland Landing
Sharon
Queensville
River Drive Park
Keswick
Cookstown
Thornton
Churchill
Gilford
Belle Ewart
Roches Point
Lefroy
Big Cedar Point
Barclay
Alcona Beach
Stroud
Innisfil Beach
Ben Secours
Glenwood Beach
Sandy Cove
Big Bay Point
Minet Pt.
BARRIE
Holly
Painswick
Angus
C.F.B. Borden
Baxter
Lisle
Glencairn
Avening
Brentwood
New Lowell
Stayner
Creemore
Dunedin
Honeywood
Terra Nova
Mansfield
Glen Huron
Duntroon
Devils Glen
DEVILS GLEN
Singhampton
Maxwell
Badjeros
Redickville
Feversham
Kimberley
Eugenia
Flesherton
Ceylon
Dundalk
Swinton Park
Dromore
Hopeville
Corbetton
Riverview
Shelburne
Kelden
Monticello
Conn
Mount Forest
Damascus
Grand Valley
Kenilworth
Arthur
Rothsay
Teviotdale
Thornbury
Clarksburg
Craigleith
CRAIGLEITH
Heathcote
Rocklyn
Collingwood
Ravenna
Gibraltar
Nottawa
Brocks Beach
Sunnidale Corners
Wasaga Beach
WASAGA BEACH (NC)
Oakview Beach
Springhurst Beach
Edenvale
Minesing
SPRINGWATER (NC)
Phelpston
Anten Mills
Midhurst
Dalston
Crown Hill
Craighurst
Langman
Elmvale
Hillsdale
Orr Lake
Allenwood Beach
Woodland Beach
Wendake Beach
Deanlea Beach
Bluewater Beach
Wahnekewaning Beach
Ossossane Beach
Cawaja Beach
Nottawaga Beach
Wymbolwood Beach
New Wasaga Beach
Penetanguishene
Midland
Port McNicoll
Victoria Harbour
Waubaushene
Fesserton
Coldwater
Sturgeon Bay
Vasey
Moonstone
Waverley
Wyevale
Wyebridge
Perkinsfield
Balm Beach
Lafontaine
Toanche
Thunder Beach
Cedar Point
Christian Island
Sawlog Bay
Honey Harbour
South Bay
SIX MILE LAKE
Big Chute
Severn Falls
Port Severn
Paradise Pt.
Highland Pt.
WYE VALLEY HERITAGE
Elimra Point
Swift Rapids
Sparrow L.
Port Stanton
Buena Vista
Cumberland Beach
Ardtrea
Warminster
BASS LAKE
Prices Cor.
Jarratt
Coulson
ORILLIA
Edgar
Guthrie
Oro Sta.
Hawkestone
Simcoeside
Shanty Bay
Gravenhurst
West Gravenhurst
Muskoka
Vaughan
STEELES
ALBION
REXDALE
BLVD
DERRY RD
INDIAN LINE
DIXON
AIRPORT
WESTON RD
JANE ST
PIONEER VILLAGE
FINCH
SHEPPARD
WILSON
LAWRENCE
Humber

Mono Rd. Stn. - Sandhill

WORKSHEET

IDTO 0697825

C30

(1) ORIGIN x 1759075.0

y 4854800.

(5) Standard Error S_x

C50

(2) LIFT-OFF x_1 1759540.0

y_1 4853400.

(6) Standard Error S_y

(3) $(x_1 - x)$ = .4650

(4) $(y - y_1)$ = 1400

(7) DAMAGE LENGTH

$$L = [(x_1 - x)^2 + (y - y_1)^2]^{1/2}$$

(8) $\alpha = \tan^{-1} \dfrac{|y - y_1|}{|x - x_1|}$

(3)+(4) $\boxed{\rightarrow r,\theta}$ = .4856 m

$\boxed{x \leftrightarrow Y}$ = 17°

(9) Standard Error $S_L = (S_x^2 + S_y^2)^{1/2}$

(5)+(6) $\boxed{\rightarrow r,\theta}$ = 58 m C

(10) $\beta = \dfrac{\tan^{-1} S_L}{L}$

(7)+(9) $\boxed{\rightarrow r,\theta}$

$\boxed{x \leftrightarrow Y}$ = 1°

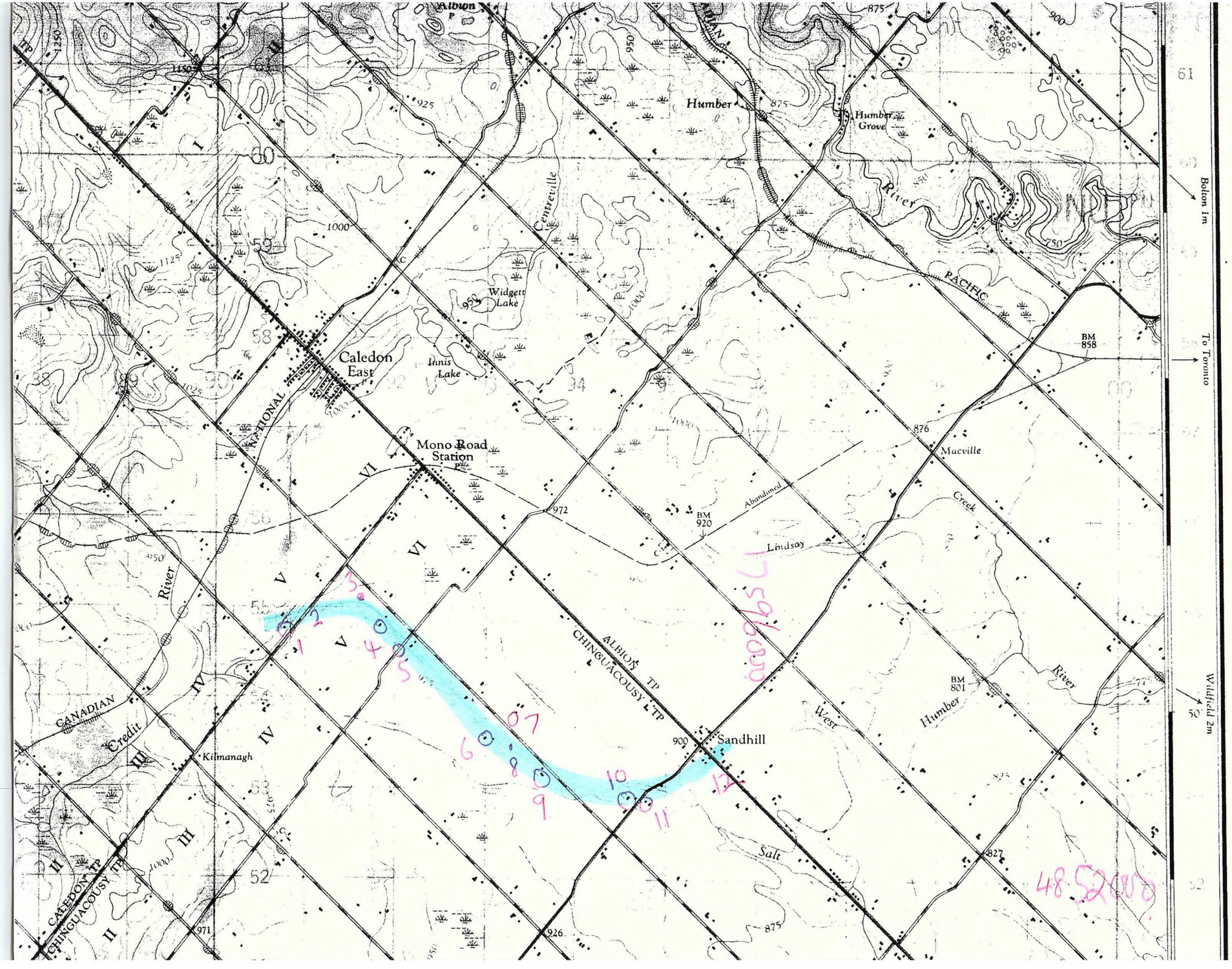
NE Quad $\phi = 90 - \alpha$

NW Quad $\phi = 270 + \alpha$

SW quad $\phi = 270 - \alpha$

SE quad $\phi = 90 + \alpha$

(11) ϕ = 287°



CONVERSION SCALE FOR ELEVATIONS

Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000

Metres 30 20 10 0 100 50 0 100 200 300

T.N

0° 47′ or 14 Mils

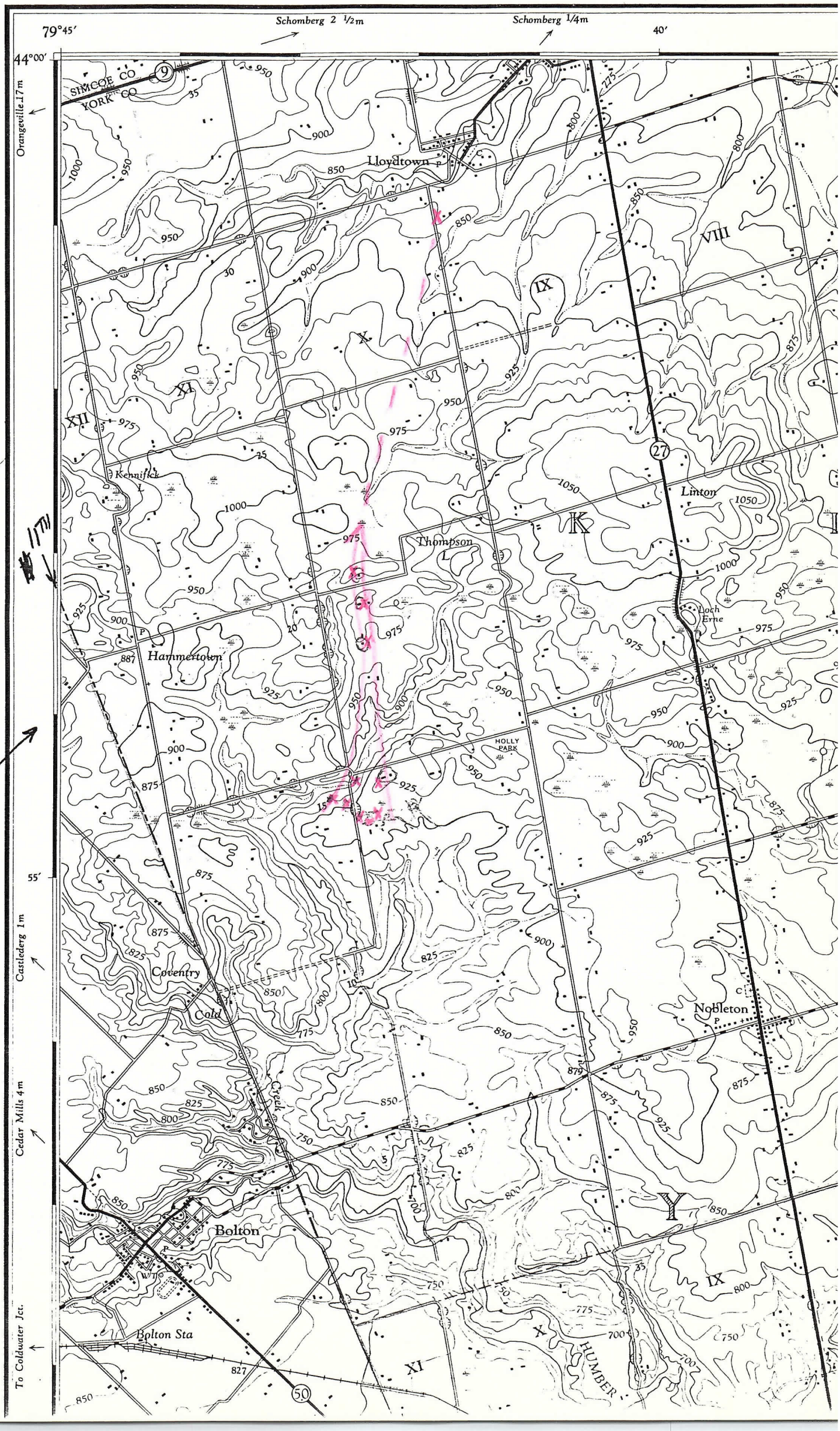
7° 57′ or 141 Mils

Magnetic North

Grid North

NATIONAL TOPOGRAPHIC SERIES 1:50,000

MINES AN
SURV

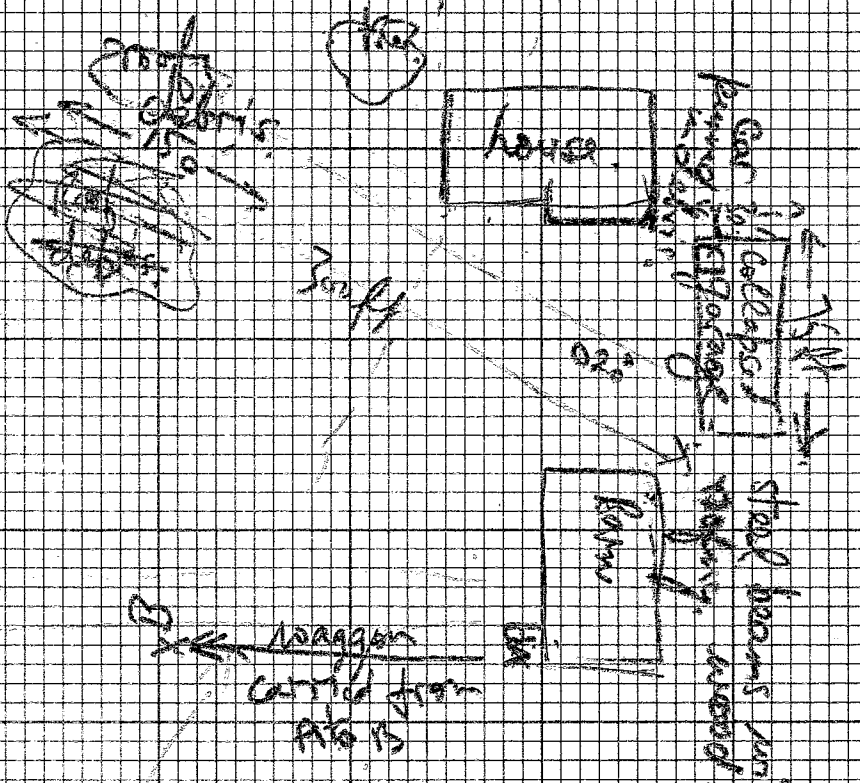


PG41-10149
10 X 10 to the inch
MADE IN CANADA

Storm date: eSeed Aug 16, 1978. Friendly Hammerstein
Time: 4 p/c. (1600 EDT)

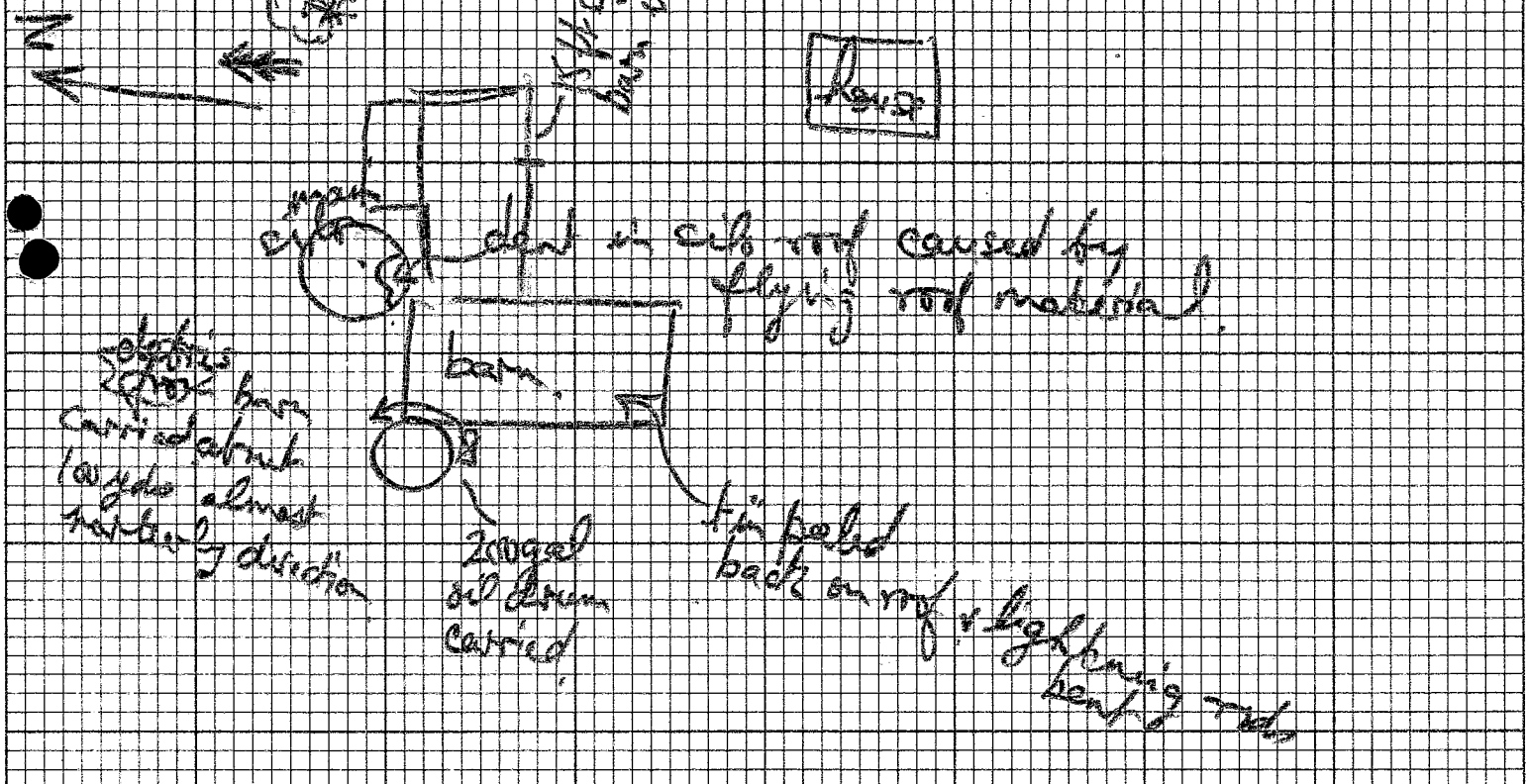
Delmas. 17th sidetroad King twp (Yorkz Region)
and 11th conc.

Mrs Delmas outside in yard at time of the storm. Sky became very black, hvy rain then, & thunderous sucking sound like freight train over then storm was upon them. Storm lasted a couple of minutes. Garage knocked off its foundation about 5 ft. towards the north.



PG41-10149
10 X 10 to the inch
MADE IN CANADA

Turns about 4:05 EDT
Ontis directly across N. road from Delmar.
17 sidereal Kuiper belt
+ 11th conc.
damage width
about 500-600 ft



McGuire next neighbour to be work.

Kuiper
next
neighbour
work

PG41-10149
10 X 10 to the inch
MADE IN CANADA

Lot 15 conc. 10
Char Richard 16/15 x 11th con.
Edwood

— 5th Forage Wagon carried Sawed yards forward
— Steel rack carried and Sacked from the north