Crop Formation: Columbia City, Indiana, 1996

Laboratory Code: KS-03-112
Location: Columbia City, Indiana
Material: Wheat (*Triticum aestivum*) **Formed:** 7-13-96 (approx.) **Sampled:** 7-20-96
Sampled By: Ms. Nancy Talbott and Mr. Roger Sugden
Formation Characteristics: See Table 1. (attached) for detailed field notes related to the sampling and characteristics of the formation and environment.

Relevant Findings:

1) - a total of nine, formation related, sample groups disclosed significantly lengthened stem nodes.

2) - four of the expanded node sample sets were from downed plants within the geometric formations and five were found in ransomly downed crop in tyhe field, which is often assumed to be "wind damage".

3) - only three soil samples were submitted for analysis. Although the mean level of magnetic material was low, it was above the concentration expected in normal soil.

4) - it is important to note that in many formations the **so-called "wind damage" regions <u>are associated</u> with the geometric crop formation.** We have consistently pointed this out in past studies. "Popular wisdom" regularly refers to non-geometrically downed crops as wind damage, yet we find here, as in many other cases studied in this laboratory, that these regions can have a <u>higher degree</u> of energy related alterations (such as node expansion etc.) than is found in the nearby geometric areas.

Results and Discussion:

<u>Node Length Analyses</u>

A total of 36 sample groups were examined, each with between 15-30 plants per group. The node lengths were evaluated for each group and compared with the mean value of node length for all of the 13 control sets (Nl = 2.61 mm with an s.d. of 0.43 in a total of 324 plants). Each sample group (including the individual control sets) was compared with the mean node length value.

Percent difference between each sample set and the control mean is shown in the bracketed numbers in Fig's.1 & 2 (field sampling diagrams) attached. A bracket with an asterisk

at the upper right [ ]* means the difference is statistically significant ($P<0.05$). It should be noted that the highest node expansions occur in the so-called "wind damage" regions.

In Fig. 3 all the control sets are shown in relation to the significant node alterations in the formations samples. The numbers along the abscissa match the sampling locations in Fig's 1 & 2. This is another way of visually demonstrating that the node expansions in the formation plants are completely outside the range of variability in the control samples. Since the sampling was conducted approximately one week after the formation appeared, and because the crop was quite mature at the time the formation occurred, that is, not in a vogorous growth mode, these significant node changes cannot be explained by gravitropism[1].

Magnetic Particle Studies

From results of magnetic-drag experiments conducted on three soil samples (between 150 to 400 gms each) we report evidence of magnetic particle - crop formation energy interactions. A routine laboratory procedure has been established for removing magnetic particles from soil samples collected in and around crop formation sites. **In normal soil the content of magnetic material is in the range of 0.4mg/g-soil.** In this event we found levels slightly above this normal range. Summarized in Table 2. are the magnetic-drag data.

Table 2.

Sample Location	Magnetic Particles mg/g soil
Center Large Circle	0.1
Center - SE small circle	2.0
Control 100 ft.-E	1.2

The low concentration at the center of the large circle, combined with the presence of particles in the control sample taken 100 ft. East, indicates the opperation of centripetal energy forces within the plasma systems. In some formations, as in the Paulding, Ohio study[2], it was necessary to take samples at distances exceeding ½ mi. from the formation, before finding particle concentrations within the normal range.

Microscopic examination confirmed the presence if magnetite like beads (2 - 20 microns dia.) similar to those found in many other formations; this material was also similar to the magnetic bead material in the sem-molten meteoric iron found in a British crop formation[3] in 1994.

Germination tests were not conducted because of severe *Ustilago* mold on the plants.

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REFERENCES

1) *Gravitropic Responses in Simulated Crop Formations,* 1997., BLT Report No. 86, 10-14-97

2) *Crop Formation: Paulding, Ohio.*, BLT Report No. 80, 3-31-97

3) Levengood, W.C. & Burke, J.A., *Semi-Molten Meteoric Iron Associated with a Crop Formation,* J. Scientific Exploration, 9 , pp. 191-199 (1995).

COLUMBIA CITY, INDIANA (Whitely County, Aetna Rd) KS-03-112

Formed: 7/13/96 (approx.) WHEAT
Sampled: 7/20/96
By: N.Talbott, R. Sugden

Farmer: Tom Western
5570 North, 550 West
Columbia City, IN 46725
phone: 219/327-3333

Land Owner:
John (wife Karen) Western
3625 North, 250 West
Columbia City, IN 46725
phone: 219/244-6896

NOTES ON FIELD SAMPLING:

Pp. 1-2 of field diagram indicate parts of formation not sampled by NT due to fact that RS said he had already thoroughly sampled them. See RS samples.

General notes: Field had a 30-45° slope from NW to SE; both the ringed circle/dumbell and the single circle with "L" shaped pathway were on or near the tops of hills; "V" was half-way down slope toward wet bottom area. Lots of "wind damage" throughout bottom area of field, as well as up on hillside with ringed circle/dumbell part of formation.

There were several small "grapeshot" in field, which I did not see & did not sample.

Nearest people to site, Grey & Amy Fry (in house at corner of East edge of field) were awakened by dog chained outside barking wildly for several hours night of 7/13/96; dog wore "raw" spots on its chest straining against leash & would not quiet down until brought inside at 3-4 a.m. The Fry's looked out, but saw nothing to warrant dog's behavior. Formation apparently discovered the following day.

In largest circle there were multiple standing "tufts" at Northwest side of flattened crop; "rippled" effect in lay of crop inside circle generally.

FIELDNOTES, cont.

S1, S2, S3 all taken near separate "epicenters" in smaller, 23-24' ellipsoidal at bottom of ringed circle.
S4 = near edge of ellipse.
S5 = Not sure if it came from standing ring or flattened outer ring; RS's diagram inadequate.
S6, S7= Standing tufts in middle of downed outer ring.
S8 = Downed crop in outer ring.
S9 = 14' west of center of big circle
S10 = from inside edge, west, big circle
S11 = from inside edge, east end of big circle
S12 = from standing ring around big circle, 2-2-1/2" into standing crop
S13, S14, S15 = Green grass in northwest area of big circle
S16 = approx. 40' SE from outer ring of ringed circle, in "wind damage" area (moderately bent over)
S17 = approx. 60' SE, again "wind damage" area
S18 = approx. 80' SE, not bent over, but very near "wind damage" generally...might be a control, not sure, since it was so close to randomly-downed areas
S19, S20, S21 = All about 18' apart, in "wind damaged" area at bottom of hill (wet) between two circles

C1 = 6" northwest, of edge of flattened ring
C2 = 18' SE of edge of flattened ring
C3 = 20' SE of edge of "V"
C4 = 40' SE " " " "
C5 = 60' SE " " " " (nearing "wind damage" at bottom hill)
C6 = 120' SE of edge of flattened "V"
C7 = 160' SE " " " " "
C8 = 10' NW of smaller circle with "L"
C9 = 10' SE " " " " "
C10= 30' SE " " " " "
C11= 75' SE " " " " "
C12= 150' SE " " " " "
C13= 200' SE " " " " "

Note: Due to extensive "wind damage" in-between two circular aspects, the best controls may be from C7 on to C13.

Etna Troy Township, Indiana circle formation (Part 1) formed 7-14/5-96

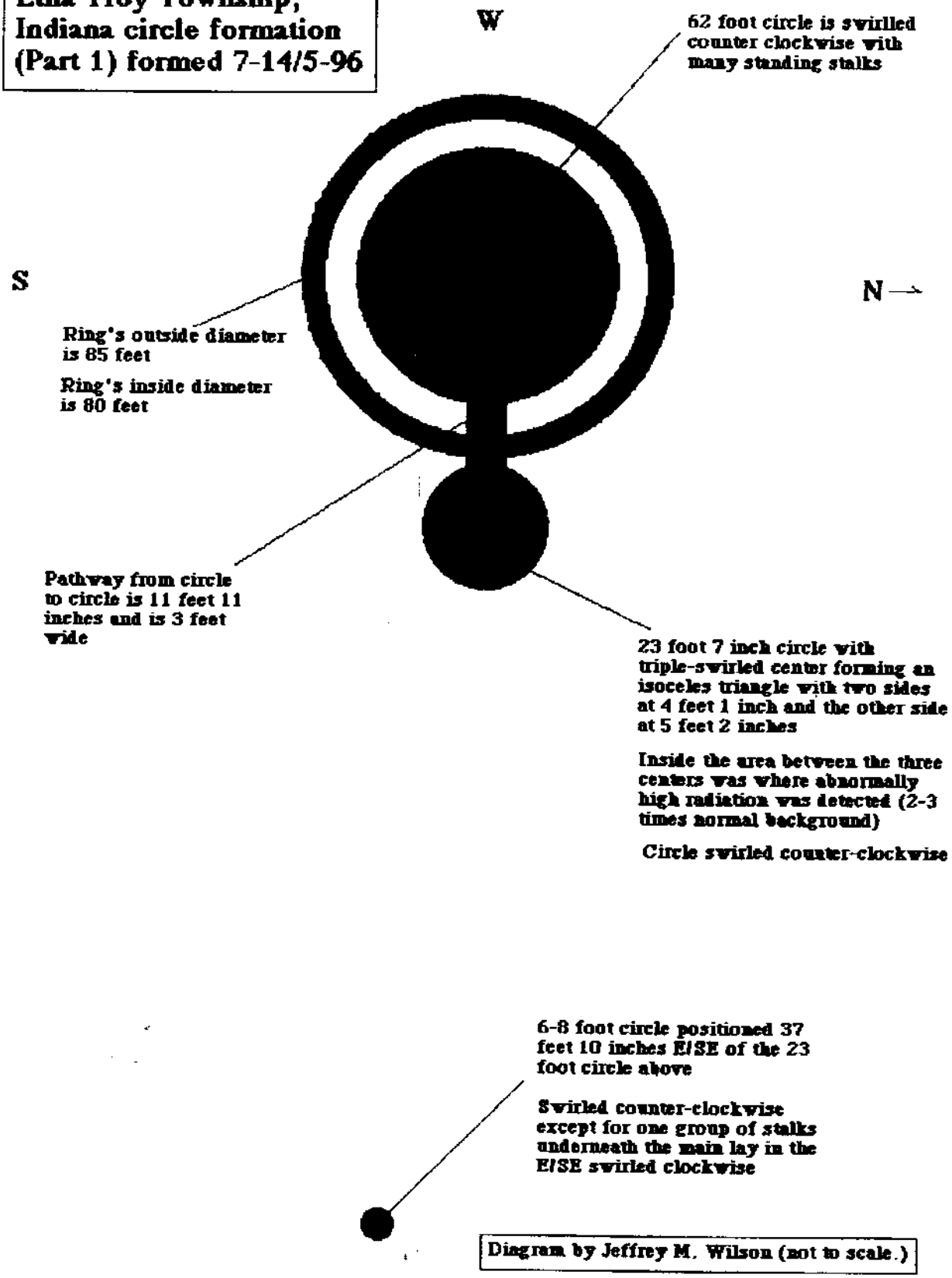
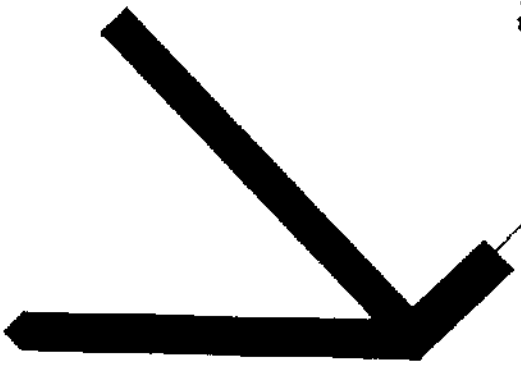


Diagram by Jeffrey M. Wilson (not to scale.)

Etna Troy Township, Indiana circle formation (Part 2) 7-14/5-96



The 6-8 foot circle from Part 1

71 feet from center to front edge of path

368 feet from center to center

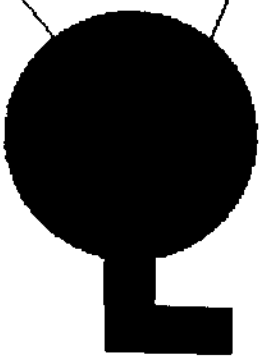
N

The starting point of the "Y" formation began in at the point of an isoceles triangle -- it expanded to a pathway 2 feet 11 inches wide and flowed North 44 feet where it split

The flow continued around at an angle of exactly 45 degrees; abruptly ending 39 feet 8 inches from that vertex

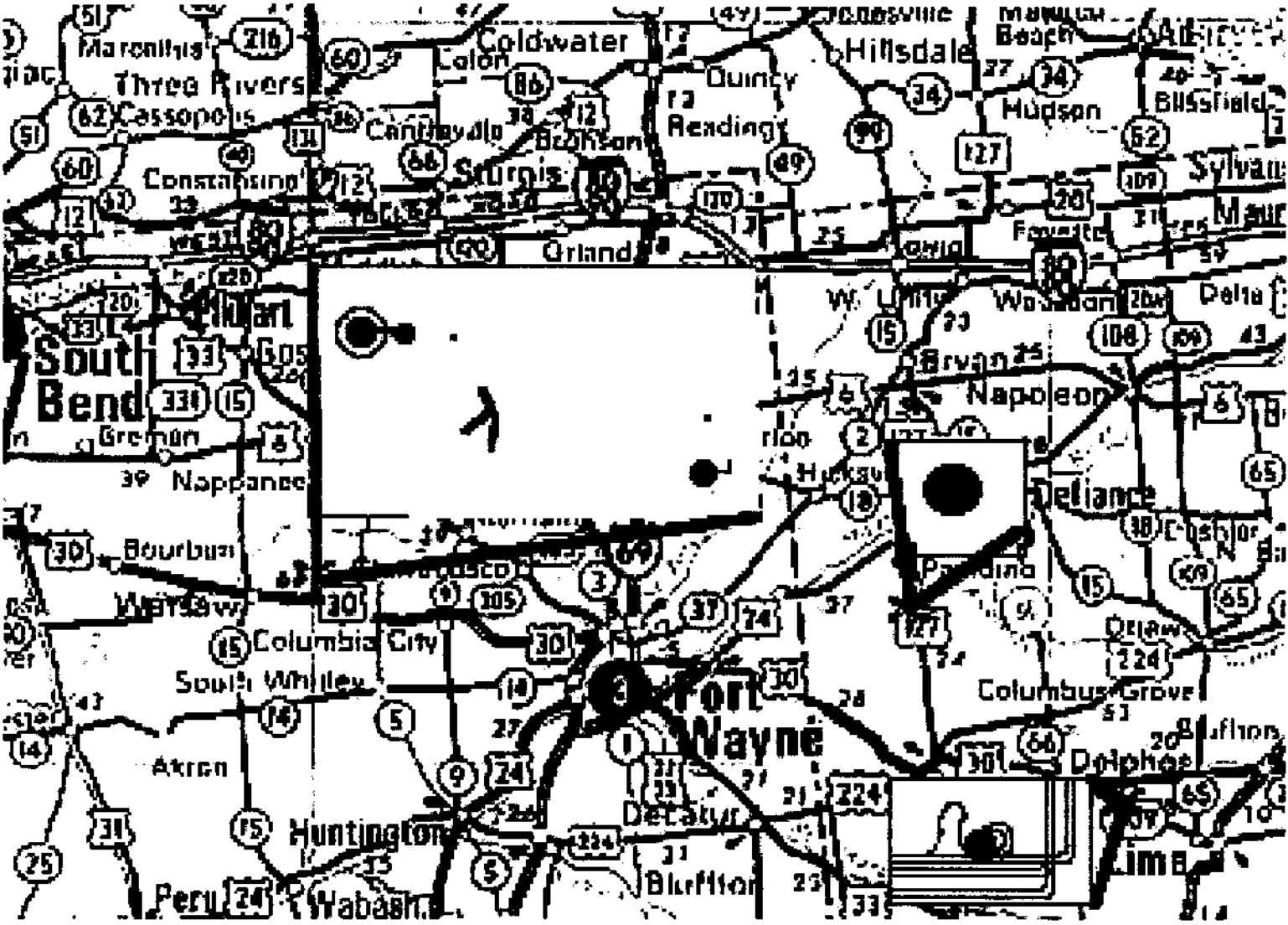
The flow from the main line continued on at an angle of 135 degrees, creating a 90 degree angle off the second part of the "Y" for 15 feet

42 foot circle with adjoining 3 foot wide "L" shaped pathway



6-8 foot "galaxy" of "fan" shaped circle located 56feet two inches (center to center) from 42 foot circle

Diagram by Jeffrey M. Wilson (not to scale.)

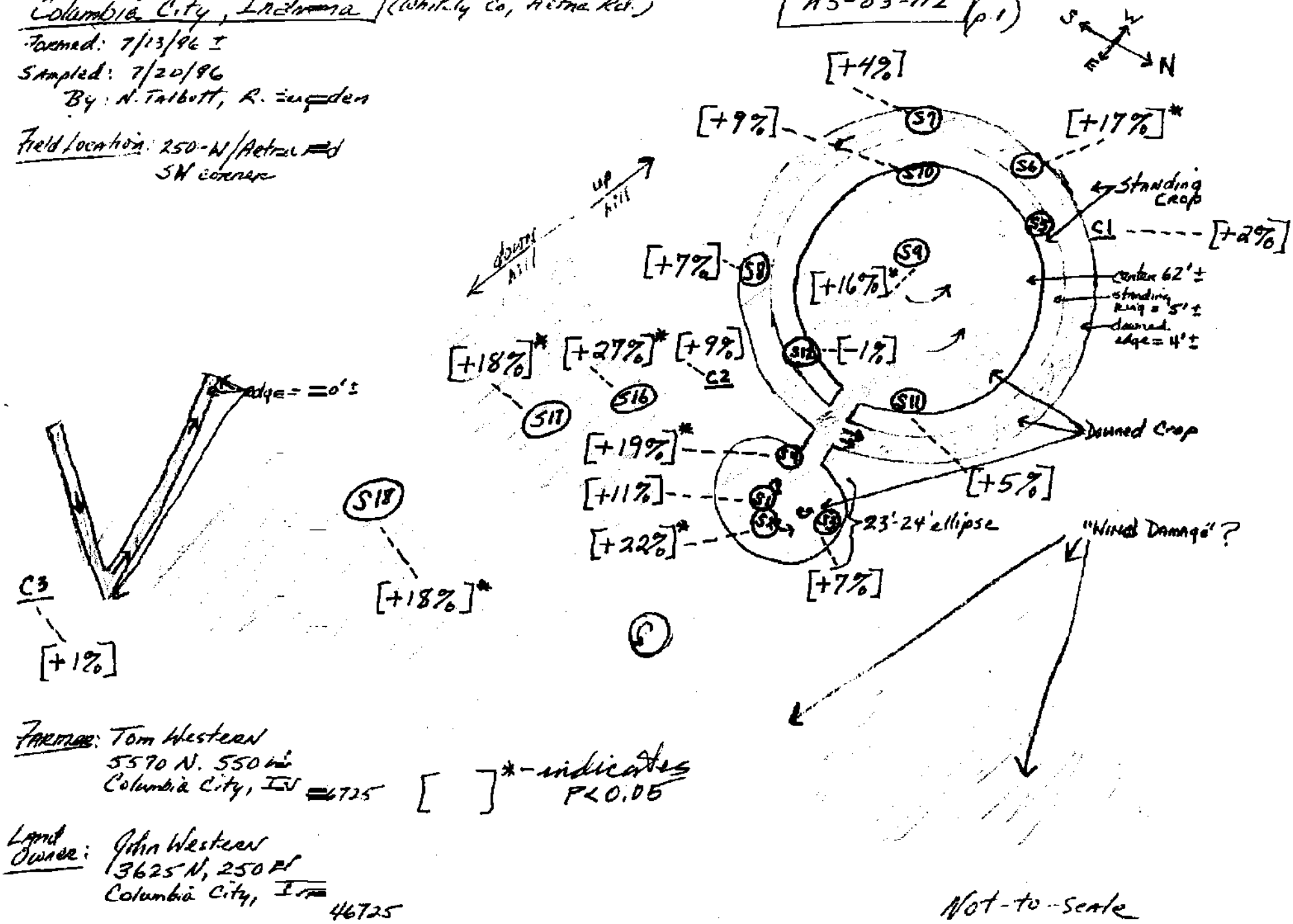

Marcellus
Three Rivers
Cassopolis
Constantine
Coldwater
Colon
Centreville
Quincy
Reading
Hillsdale
Hudson
Bloomfield
Sturgis
Orland
Millgrove
South Bend
Bremen
Nappanee
Bourbon
Warsaw
Columbia City
South Whitley
Akron
Huntington
Peru
Wabash
Fort Wayne
Decatur
Bluffton
Bryan
Napoleon
Defiance
Delta
Columbus Grove
Dolphos
Lima

Columbia City, Indiana (Whitley Co, Hitma Rd.) | KS-03-112 (p.1)

Formed: 7/13/96 I

Sampled: 7/20/96
By: N. Talbott, R. Snyder

Field location: 250-N/Retrace
SW corner



Farmer: Tom Westeen
5570 N. 550 W
Columbia City, IN 46725

Land Owner: John Westeen
3625 N, 250 W
Columbia City, IN 46725

[ ]* - indicates P<0.05

Columbia City, IN

Formed: 7/13/96 ?

Sampled: 7/20/96, M Talbott

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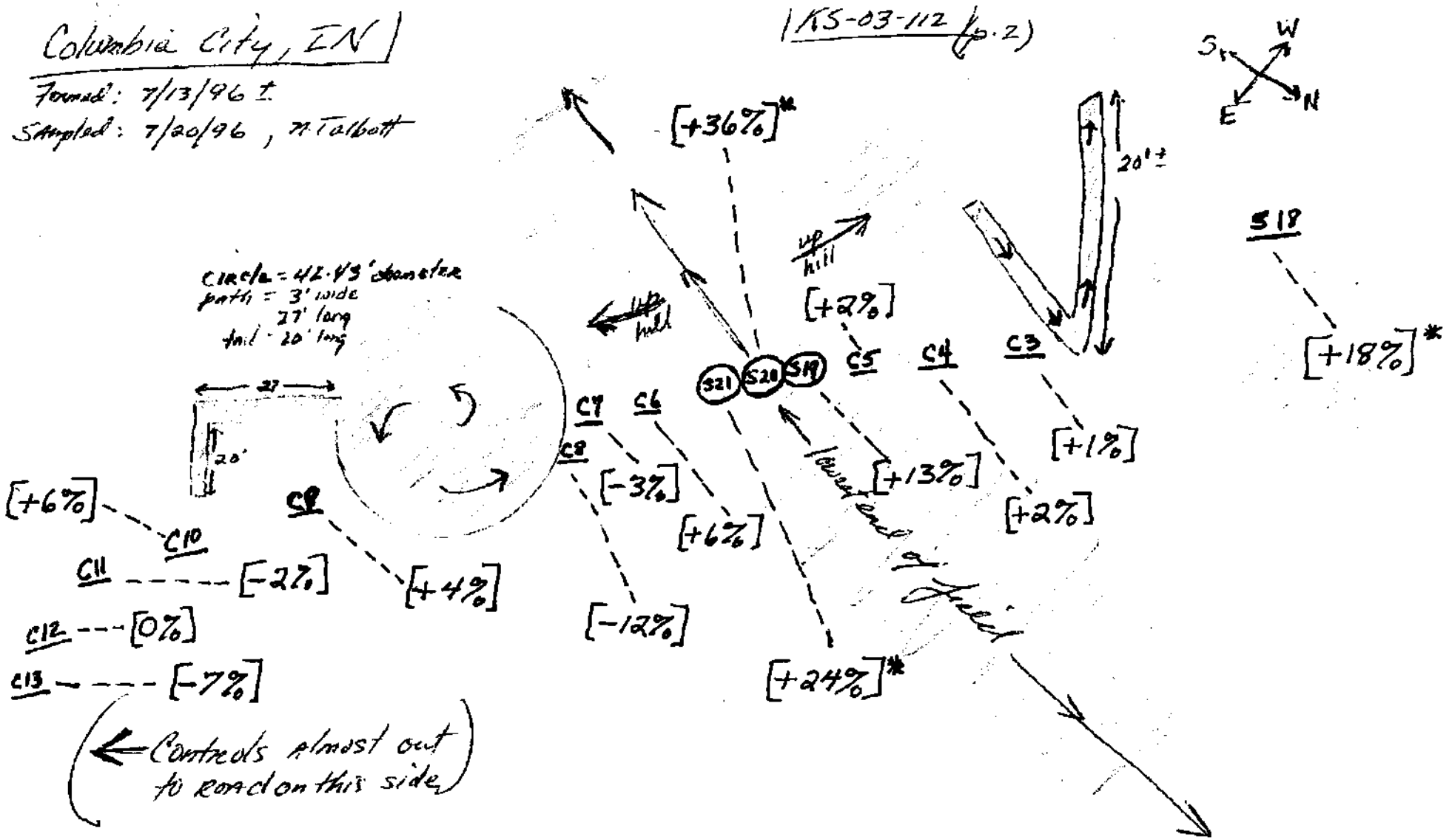

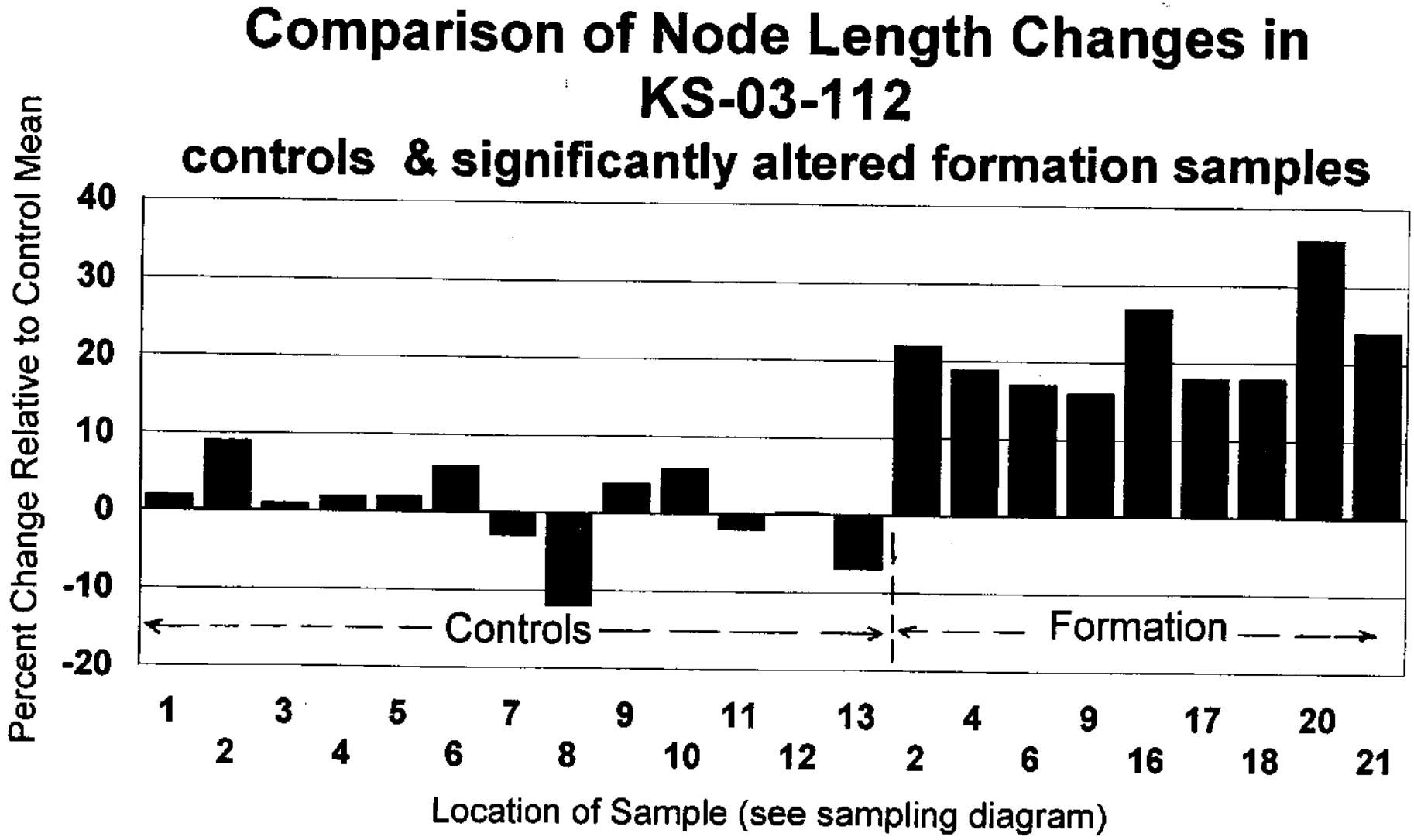
Comparison of Node Length Changes in KS-03-112
controls & significantly altered formation samples
Percent Change Relative to Control Mean
40
30
20
10
0
-10
-20
Controls
Formation
1
2
3
4
5
6
7
8
9
10
11
12
13
2
4
6
9
16
17
18
20
21
Location of Sample (see sampling diagram)