

SURVEY NOTES & CALCULATIONS FOR

VANGORDA # 2 TRAVERSE

D.D.H.'S 81-VR-18 → 81-VR-34

V-55-R & V-118R

BY: D. ARMSWORTHY  
J. MOROZ

DATE: MAY 25 & 26 / 81

(13)

VANCOUVER SURVEY #2

BS H.I.W. 1458  
STA. H.I.W. 1456  
FIS. D

H.I. 1.519  
H.P. 1.361

H.O.Z.  $\left\{ \begin{array}{l} \leftarrow 209-58-04 \\ 59-56-08 \end{array} \right\} 209-58-04$

V.I.  $\left\{ \begin{array}{l} \leftarrow 93-48-56 \\ 266-12-34 \end{array} \right\} 93-48-11$   
<sub>160  
26</sub>

H.D. 125.025 m 125.021 m  
S.D. 125.440 m ✓

DATE: MAY 25 1981

BY: D ARMSWORTHY  
J. MOROZ

CORR. -1 P.P.M

14

BS HIW 1458

H.I 1.519

STA HIW 1456

H.P 1.220

FS DDH'S.

DDH. H 81-VR-18

H.D. 35.364 ✓

V.D. -4.460 -4.458

HZ < 201-17-20 } 201-17-13  
42-34-26 }

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DDH. 23 (81-VR)

H.D. 65.616 ✓

V.D. -6.731 -6.729

HZ. & 207-14-33 } 207-14-32  
54-29-04 }

15

DDH. H 81-VR 22

H.D. 91.419      91.415  
V.D. -8.605      -8.624

HZ. < 209-17-16 }  
58-34-24 } 209-17-12

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DDH 81-VR 20

H.D. 127.044      127.042  
V.D. -9.637      -9.649

HZ. < 210-06-48 }  
60-13-06 } 210-06-33

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16

BS. H.I.W 1456

STA D

FS E

H.J. 1.556

H.P. 1.502

H.O.Z. < 69-19-03 }  
138-38-14 } 69-19-07

VE < 87-59-44 }  
272-01-00 } 87-59-22

H.D. 53.556 53.561

S.O. 53.592 53.594

(17)

BS. HIW 1456 H.J. 1.556  
STA D H.P. 1.220  
FS D.D.H.'S

D.D.H 81-VR-21

H.D. 20.663 -  
V.D. +1.813 +1.811

HZ < 355-51-06 } 355-51-07  
351-42-14

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UDH 81-VR-19

H.P. 4.512 4.510  
V.D. -0.680 -

HZ. < 243-49-48 } 243-50-06  
127-40-12

18

DDH # 91-VR-24

H.D. 47.822      47.820

V.D. -0.648      -0.630

142 < 98-40-26 } 98-40-19  
197-20-58 }

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(14)

BS. D

STA. E

FS. F

H.I. 1.501

H.P. 1.490

H02 ← 119-30-30 } 119-30-30  
239-01-00 }

Vt. ← 85-39-50 } 85-39-08  
274-21-34 }

17.D. 64.628 64.632

5.D. 64.809 -

(20)

BS. E

STA F

FS. G

H.J. 1.570

H.P. 1.326

H2. < 263-11-58 } 263-11-40  
166-23-20 }

Vt. < 271-34-50 } 88-25-40  
88-26-10 }

H.D. 46,974 ✓

S.D. 46,992 ✓

(21)

BS. E NJ 1.570  
STA F HP 1.220  
FS. DDH'S

DDH # 81-VR-25

H.D. 59.227 59.225  
V.D. -5.143 -5.145

H2 < 00-58-18 } 00-58-06  
01-56-12

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DDH # 81-VR-26

H.D. 30.058 ✓  
V.D. -2.154 -2.152  
H2 < 01-44-44 } 01-44-33  
03-29-06

(22)

DDH H 81-VR-27

H.D. 2.663m ✓

V.D. -0.786 ✓

H2. < 101-41-30 } 101-41-33  
203-23-06 }

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D.D.H. 81-VR-34

H.D. 31.358 31.356

V.D. +0.605 +0.603

H2. < 172-10-26 } 172-10-18  
344-20-36 }

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DDH 81-VR-33

H.D. 61.380 ✓

V.D. +1.619 ✓

H2 < 175-23-24 } 175-23-19  
350-46-30 }

(23)

BS F  
STA G  
FS HIW 1455

H.J. 1.411

H.P. 1.290

H2. < 189-06-08  
12-12-18

Vt. < 88-40-38  
271-20-16

H.D. 217.358 217.360

S.D. 217.418 ✓

STA. 1455 DESTROYED

(24)

(TRAVERSE CONT'D)

DATE: MAY 26 1981

BY: D. ARMSWORTHY

J. MOROZ.

WEATHER: SUNNY @ +17°C

MODERATE WIND

BS. F

STA. G

FS. H

H.I. 1.555

H.P. 1.382

HORIZ L. 00-00-00

213-19-06

66-37-12

} 213-18-06

VERT. L. 90-49-26

269-11-24

} 90-49-01

H.D. 100.812

100.811

100.813

S.D. 100.822

✓

100.824

@ -17PM

@ +10 ppm

@ 120 ppm

25

H.I. 1.555

DDH. 81-V R-32

H.D. 1.220

H.D. 68.608 68.602

V.D. 12.492 12.496

H2. L 101-45-33 }  
203-30-24 } 101-45-12

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VO-55-R

H.D. 64.805 ✓

V.D. 12.301 ✓

H2. L 00-01-00 }  
101-46-36 } 101-45-32  
203-32-04 }

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DDH V-118-R

H.D. 38.250 . 38.252

V.D. 11.183 ✓

H2. L 00-01-00 }  
97-28-30 } 97-27-09  
194-55-18 }

(26)

DDH 81-VR-31

H.D. 30.343 30 345

V.D. -4.929 ✓

H2. C }  
00-01-00 }  
255-27-56 } 255-26-30  
150-54-00 }

(27)

B.S. 6  
STA 4  
F.S. 1

H.I. 1.622  
H.P. 1.435

HORIZ. L    ~~00-01-00~~    00-01-00  
                 ~~16-33-33~~    16-33-24  
                 ~~33-05-36~~    33-05-24  
                                      } AVG } 16-32-12

VERT. L    88-31-04 }  
                 271-30-00 } 88-30-32

H.D.    105.510    105.509

S.D.    105.541    -

28

H.J. 19622

BS. G.

14.P 1.220

STA. H.

FS DDH'S

DDH. H 81-VR-30

H.D. 27.008 27.002

V.D. -2.863 -2.855

HZ. L

00-01-00	}	17-37-06
17-38-00		
35-15-12		

DD.H 81-VR-29

H.D. 52.611 52.612

V.D. -0.917 -0.920

HZ. L

00-01-00	}	40-45-54
40-46-50		
81-32-48		

7. 1.22c

29

DDH # 81-VR-28

H.D. 82.778 82.779

V.D. +3.144 +3.140

H2C	00-01-00	} 47-13-54
	47-14-52	
	94-28-48	

30

BS. H

STA. I

FS. HIW 1456

H.I. 1.513

H.D. 1.452

H2. <

~~60-01-00~~

160-45-20

321-30-52

} 160-45-26

VT <

89-15-02

270-46-38

} 89-14-12 ✓

H.D. 147.145 ✓

S.D. 147.158 ✓



SURVEY CALCULATION SHEET

Vangorda Traverse #2

Station	Horiz. Angle	Azimuth	Slope Dist. UTM ADJUSTED .9995	Vert. Angle	V.D	H.I.	H.P.	Calculated		Adjusted	
								ELEVATION	ADJUSTMENT	ADJ. ELEV.	
W 1456								1161.114			
"D"			185.347	93-48-11	-12.294	+1.519	-1.361	1148.978	-.037	1148.941	
"E"			53.566	87-59-22	+1.879	+1.556	-1.302	1151.111	-.011	1151.063	
"F"			64.777	85-39-08	+4.911	+1.501	-1.490	1156.033	-.013	1155.972	
"G"			46.969	88-25-40	+1.289	+1.570	-1.326	1157.566	-.009	1157.496	
"H"			100.772	90-48-58	-1.435	+1.555	-1.382	1156.304	-.022	1156.212	
"I"			105.488	88-30-32	+2.745	+1.622	-1.435	1159.236	-.021	1159.123	
W 1456			147.084	89-14-12	+1.959	+1.513	-1.452	1161.256	-.029	1161.114	
			704.003				DIFF	+ .142			

## D.D.H. LOCATIONS

PAGE 1 of 4

## CALCULATION SHEET.

DA

VANGORDA # 2  
TRAVERSE

BACKSIGHT	HIW 1458	✓	✓	✓	HIW 1456	HIW 1456
STATION	HIW 1456	✓	✓	✓	"D"	"D"
FORESIGHT	81-VR-18	81-VR-23	81-VR-22	81-VR-20	81-VR-21	81-VR-10
HORZ. DIST.	35.346 ✓	65.583 ✓	94.370	126.979	28.649	4.509
H. I.	+ 1.519	+ 1.519	+ 1.519	+ 1.519	+ 1.556	+ 1.556
H. P.	- 1.220	- 1.220	- 1.220	- 1.220	- 1.220	- 1.220
HOLE DIFF.	- 4.559	- 6.730	- 8.615	- 9.643	+ 1.812	- 0.680
STA. ELEV.	1161.114	✓	✓	✓	1148.941	1148.941
TOT. DIFF.	- 4.260	- 6.431	- 8.316	- 9.344	+ 2.148	- 0.244
COLLAR	1156.854	1154.683	1152.778	1151.770	1151.089	1148.597
AZIMUTH BS.						
Top - 180°						
B.S. AZIMUTH	12-52-17	12-52-17	12-52-17	12-52-17	42-50-06	42-50-06
HORZ. ∠	201-17-13	207-14-32	209-17-12	210-06-33	355-51-07	243-50-06
AZIMUTH	214-09-30	220-06-49	222-09-29	222-58-50	38-41-13	286-40-12
BEARING	✓					
STA. NORTHING	6903005.639	✓	✓	✓	6902870.025	6902870.025
LAT.	- 29.248	- 50.156	- 69.956	- 92.896	+ 22.363	- 1.29
HOLE COORD.	6902976.391	6902955.483	6902935.683	6902912.743	6902892.388	6902863.73
STA. EASTING	594446.191	✓	✓	✓	594320.434	594320.434
DEP.	- 19.846	- 42.255	- 63.339	- 86.568	+ 17.907	- 4.319
HOLE COORD.	594426.345	594403.936	594382.852	594359.623	594338.341	594316.115
	✓	✓	✓	✓	✓	✓

## D.D.H. LOCATIONS

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## CALCULATION SHEET.

DA

## VANGORDA # 2

## TRAVERSE

BACKSIGHT STATION FORESIGHT	HIW-1456 "D" 81-VR-24	"E" "F" 81-VR-25	"E" "F" 81-VR-26	"E" "F" 81-VR-27	"E" "F" 81-VR-34	"E" "F" 81-VR-35
HORIZ. DIST.	47.797	59.196	30.043	2.667	31.341	61.349
H. I.	+1.556	+1.570	+1.570	+1.570	+1.570	+1.570
H. P.	-1.220	-1.220	-1.220	-1.220	-1.220	-1.220
DIFF.	-0.639	-5.144	-2.153	-0.786	+0.604	+1.619
STA. ELEV.	1148.941	1155.972	1155.972	1155.972	1155.972	1155.972
DIFF.	-0.303	-4.794	-1.803	-0.436	+0.954	+1.969
COLLAR	1148.638	1151.178	1154.169	1155.536	1156.926	1157.941
AZIMUTH F.S.						
TOP - 180°						
B.S. AZIMUTH	42-50-06	231-39-12	231-39-12	231-39-12	231-39-12	231-39-12
HORIZ. <	98-40-19	00-58-06	01-44-33	101-41-33	172-10-18	175-23-19
AZIMUTH	141-30-25	232-37-18	233-23-45	333-20-45	43-49-30	47-02-31
BEARING						
STA. NORTHING	6902870.025	6902889.918	6902889.918	6902889.918	6902889.918	6902889.918
LAT.	-37.410	-35.936	-17.914	+2.384	+22.611	+41.807
SOLE COORD.	6902832.615	6902853.982	6902872.004	6902892.302	6902912.529	6902931.725
STA. EASTING	594320.424	594420.662	594420.662	594420.662	594420.662	594420.662
DEP.	+29.750	-47.040	-24.118	-1.196	+21.702	+44.898
SOLE COORD.	594350.184	594373.622	594396.544	594419.466	594442.364	594465.56
	✓	✓	✓	✓	✓	✓

## D.D.H. LOCATIONS

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## CALCULATION SHEET.

DA

## VANGORDA # 2

## TRAVERSE

BACKSIGHT	"F"				
STATION	"G"				
FORESIGHT	81-VR-32	VO-55-R	V-118-R	81-VR-31	
HORZ. DIST.	68.570	64.773	38.232	30.329	
H.I.	+1.555	✓	✓	✓	
H.P.	-1.220	✓	✓	✓	
DIFF.	+2.494	+2.301	+1.183	-4.929	
STA. ELEV.	1157.105	✓	✓	✓	
DIFF.	+2.829	+2.636	+1.518	-4.594	
COLLAR	1160.325	1160.132	1159.014	1152.902	
AZIMUTH FS	134-50-36				
Cor. 180°	180-00-00				
B.S. AZIMUTH	314-57-36	314-50-36	314-50-36	314-50-36	
HORZ. ∠	101-45-12	101-45-32	97-27-09	255-26-30	
AZIMUTH	56-35-48	56-36-08	52-17-45	210-17-06	
BEARING					
STA. NORTHING	6902856.309	✓	✓	✓	
LAT.	+37.750	+35.654	+23.332	-26.190	
FILE COORD.	6902894.559	6902892.463	6902890.191	6902882.619	
STA. EASTING	594453.946	✓	✓	✓	
DEP.	+57.243	+54.077	+30.243	-15.295	
FILE COORD	594511.189	594508.023	594484.194	594438.651	
	✓	✓	✓	✓	

D.D.H. LOCATIONS

CALCULATION SHEET.  
VANGORRA # 2

DA

TRAVERSE

BACKSIGHT	"G"	✓	✓		
STATION	"H"	✓	✓		
FORESIGHT	81-VR-30	81-VR-29	81-VR-28		
HORZ. DIST.	26.991	52.585	82.737		
H. I.	+1.622	✓	✓		
H. P.	-1.220	✓	✓		
DIFF.	-2.859	-0.919	+3.142		
STA. ELEV.	1156.212	✓	✓		
DIFF.	-0.017	+1.923	+5.984		
COLLAR	1156.195	1158.135	1162.196		
AZIMUTH FS	168-08-27	✓	✓		
TO 180°	+180 ✓	✓	✓		
B.S. AZIMUTH	348-08-27	348-08-27	348-08-27		
HORZ. <	17-37-06	40-45-54	47-13-54		
AZIMUTH	05-45-33	28-54-21	35-22-21		
BEARING					
STA. NORTHING	6902758.197				
LAT.	+26.855	+46.034	+167.464		
HOLE COORD.	6902735.052	6902704.231	6902825.561		
STA. EASTING	594474.640				
DEP.	-2.708	+25.413	+147.896		
HOLE CO-ORD	594474.348	594500.058	594522.536		
	✓	✓	✓		



VANGORDA # 2 TRAVERSE

D.D.H. LOCATIONS    81-VR-18 → 81-VR-34  
 V-55-R    V-113-R

SURVEYED BY: D. ARMSWORTHY & J. MOROZ  
 DATE: MAY 25 & 26 / 81  
 SCALE: 1" = 1000'



VANGORDA # 2 TRAVERSE

D.D.H. LOCATIONS 81-VR-18 → 81-VR-5  
 V-55-R & V-113-R

SURVEYED BY: D. ARMSWORTHY & J. MOROZ

DATE: MAY 25 & 26 / 81

SCALE: 1" = 1000