

SURVEY NOTES & CALCULATIONS

FOR VANGORDA TRAVERSE # 1

D.D.H.'S 81-VR-01 TO 81-VR-17

& 81-VR-35

BY: D. ARMSWORTHY
J. MOROZ

DATE: MAY 23/81

VANGORDA TRAVERSE FOR
O.D.H. LOCATIONS # 1

B.S. HIW 1460

STA. H.I.W. 1459

F.S. A

00-00-00

H.C.R.Z. < 243-03-36 } 243-03-40
126-07-24 }

VERT. < 93-33-50 } 93-32-40
266-28-18 }

H.J. 1.448 m

H.P. 1.137 m

H.D. 45.504 45.502

S.D. 45.599 /

DATE: MAY. 23. / 31

BY: D. ARMSWORTHY

J. MOROZ

WEATHER: SUNNY, VERY WARM
+ 14°C

②

B.S. HIW 1459

S.O. A

F.S. B

H2 < 125-43-04 } 125-43-14
251-26-28 }

VE < 95-07-50 } 95 07 08
264-53-34 }

H.I. 1.436 m

H.P. 1.288 m

H.D. 68.770 -

S.D. 69.055 -

(H.P. 1.220 m
H.I. 1.436 m)

FOR DD.H. PICKUP

FROM STA. A

(3)

DD.H. 81-VR-05

H.D. 52.361 m 52.355

V.D. 13.985

HZ. < 37-39-46 } 37-39-18
75-18-36 }

DD.H. 81-VR-4

H.D. 22.482 /

V.D. 12.143 12.147

HZ. < 39-57-30 } 39-57-15
79-54-30 }

DD.H. 81-VR-3

H.D. 8.847 m 8.845

V.D. -2.303 m 2.306

HZ. < 190-07-50 } 190-08-04
20-16-09 }

4

DDH. 81-VR-02

H.D. 38.768 ✓

V.D. -8.295 m -8.304

H2. L 209-15-50 } 209-15-55
58-31-50 }

DDH 81-VR-01

H.D. 68.357 ✓

V.D. -12.634 -12.638

H2. 209-52-56 } 209-52-55
59-45-50 }

LIFT. 1.22' ~~ft~~

(5)

B.S. A

STA. B

FS C

HZ L 169-23-26 } 169-23-25
338-46-50 }

VT. L 91-41-58 } 91°41'22"
268-19-14 }

H.I. 1.527 m

H.P. 1.450 m

H.D. 129.934 m 129.932 m

S.D. 129.993 m ✓

DATE: MAY 25/81

BY: D. ARMSWORTHY

J. MOROZ

WEATHER: SUNNY, Very Warm
+ 18° C

④ BS. A H.J. 1.527
SV. B H.P. 1.220
F.S. D.D.H'S

DDH # 81-VR-06

H.D. 70.215 70.213
V.D. -11.735 -11.738

HQZ. L 271-50-00 } 271-49-42
183-39-36 }

DDH # 91-VR-07

H.D. 39.002 39.001
V.D. -6.910 -6.914

HQZ. L 271-25-09 } 271-25-01
182-50-02 }

580
360
220

D.D.H. 81-VR-08

(7)

H.D. 7.693 7.691
V.D. -1.880 -1.894

H2 L. 273-12-06 } 273-12-53
186-25-46 }

D.D.H. 81-VR-09

H.D. 22.294 ✓
V.D. +3.296 +5.300

H2 L. 85-54-48 } 85-54-53
171-44-46 }

D.D.H. 81-VR-10

H.D. 52.369 ✓
V.D. +7.107 +7.105

H2 L. 88-47-33 } 88-47-11
177-34-22 }

8

BS. B

SU. C

F.S. H.I.W 1456

HZ. C $\left. \begin{array}{l} 136-31-18 \\ 273-02-16 \end{array} \right\} 136-31-08$

VERT. C $\left. \begin{array}{l} 85-09-06 \\ 274-52-12 \end{array} \right\} 85 \text{ } 03 \text{ } 27$

H.I. 1.442

H.P. 1.155

H.D. 81.722 81.721

SD 82.006 v

9

B.S. B

H.Z. 1.442

S.U. C

H.P. 1.22

F.S. DD.H.'S

DDH. # 81-VR-17

H.D. 92.042 92.040

V.D. -6.524 -6.532

HORK 205-21-50 } 205-21-33
210-43-06 }

DDH. # 81-VR-13

H.D. 61.706 61.708

V.D. -5.699 ✓

H.Z. L 208-02-22 } 208-02-24
216-04-48 }

10

D.D.H. 81-VR-35

H.D. 33.947 ✓

V.D. -3.904 ✓

H

HZ. < 286-55-56 } 286-55-58
213-51-36 }

D.D.H. 81-VR-16

H.D. 31.236 ✓

V.D. -3.898 -3.890

HZ. < 292-05-58 } 292-05-58
224-11-56 }

D.D.H. 81-VR-14

H.D. 31.980 ✓

V.D. 1.879 1.887

HZ < 84-41-46 } 84-41-30
169-23-00 }

(11)

DDH 81-VR-15

H.D. 9.141 ✓

V.D. -1.754 -1.756

H2 < 11-23-08 } 11-23-08
22-46-16 }

DDH 81-VR-11

H.D. 69.514 69.512

V.D. -2.568 -2.568

H2 < 07-53-08 } 07-53-00
015-46-00 }

DDH 81-VR-12

H.D. 95.282 ✓

V.D. -9.359 -9.369

H2 < 328-03-36 } 328-03-43
296-07-26 }

12

BS C.

SU HIW 1456

FS HIW 1458

H2. C 108-11-42 } 108-11-40
216-23-20 }

(TRAVERSE CLOSED)

SURVEY CALCULATION SHEET (VANGORDA TRAVERSE # 1)

Station	Horiz. Angle	Azimuth	Slope Dist.	Vert. Angle	Horiz. Dist.	Lat.	Dep.	TRIAL CO-ORDS.		Adjusted	
								Calculated	Calculated	Northings	Eastings
HIW 1460					ADJUSTED TO UTM 57.9915						
HIW 1459	243-03-42	309-59-06									
"A"						(+0.010)	(-0.009)	(+0.010)			
	125-43-14	193-02-48			45.480	-44.306	-10.267	6903129.949	594217.507	6903129.959	594217.498 "A"
"B"	(+0")					(+0.010)	(-0.014)	(+0.010)			
	169-23-25	138-46-03			68.736	-51.692	+45.305	6903078.257	594262.812	6903078.277	594262.789 "B"
"L"	(+0")					(+0.011)	(-0.026)	(+0.011)			
	136-31-08	128-09-29			129.868	-80.237	+102.116	6902998.020	594364.928	6902998.051	594364.879 "L"
HIW 1456						(+0.010)	(-0.017)	(+0.010)			
	108-11-40	84-40-37			81.681	+7.578	+81.329	6903005.598	594446.257	6903005.639	594446.191
HIW 1458											
		12-52-17									
ACTUAL BEARING OF 1456-1458								HIW 1456	6903005.639	594446.191	
								DIFF. (+0.041)	(-0.066)		
		DIFF + (02")									
					Err. 325.765 m						
								LINEAR CLOSURE	1 : 4193		

SURVEY CALCULATION SHEET (ELEVATION CALCULATION FOR YANGORDA # 1)

Station	Horiz. Angle	Azimuth	Slope Dist.	Vert. Angle	[REDACTED]			Calculated		Adjusted	
					V.D.	H.I.	H.P.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
			UTM ADJUSTED .9975								
I.W. 1459											
A			45.576m	93-32-46	-2.819	+1.418 m	-1.137 m	1166.178 - 2.508 1163.690	(-.005)	1163.685	A
B			69.020m	95-07-08	-6.158	+1.436 m	-1.288 m	1163.690 - 6.010 1157.680	(-.009)	1157.666	B
C			129.928m	91-41-22	-3.831	+1.527 m	-1.450 m	1157.680 - 3.754 1153.926	(-.017)	1153.895	C
I.W. 1456			81.965m	85-08-27	+6.943	+1.442 m	-1.155 m	1153.926 + 7.230 1161.156	(-.011)	1161.114	
ACTUAL		ESD	326.489					1161.156 1161.114			
							DIFF.	- .042			

D.D.H. LOCATIONS

CALCULATION SHEET.

DA

VANGORDA TRAVERSE # 1

V.T.M. CO'ORD'S

BACKSIGHT	HJW 1459	-	✓	✓	✓
STATION	A	-	✓	✓	✓
FORESIGHT	81-VR-05	81-VR-04	81-VR-03	81-VR-02	81-VR-01
HORZ. DIST.	52.332 ✓	22.471 ✓	8.842 ✓	38.749 ✓	68.323 ✓
H.I.	+1.436 ✓	+1.436 ✓	+1.436 ✓	+1.436 ✓	+1.436 ✓
H.P.	-1.220 ✓	-1.220 ✓	-1.220 ✓	-1.220 ✓	-1.220 ✓
DIFF.	+3.985 ✓	+2.145 ✓	-2.305 ✓	-8.300 ✓	-12.636 ✓
STA. ELEV.	1163.685 ✓	✓	✓	✓	✓
DIFF.	+4.201 ✓	+2.361 ✓	-2.089 ✓	-8.084 ✓	-12.420 ✓
COLLAR	1167.886 ✓	1166.046 ✓	1161.596 ✓	1155.601 ✓	1151.049 ✓
AZIMUTH FS.	193-02-48 ✓	✓	✓	✓	✓
Cor. 180°	-180 ✓	✓	✓	✓	✓
B.S. AZIMUTH	13-02-48 ✓	13-02-48 ✓	13-02-49 ✓	13-02-48 ✓	13-02-48 ✓
HORZ. ∠	37-39-18 ✓	39-57-15 ✓	190-08-04 ✓	209-15-55 ✓	209-52-55 ✓
AZIMUTH	5042-06 ✓	53-00-03 ✓	20370-52 ✓	222-18-43 ✓	222-55-43 ✓
BEARING					
STA. NORTHING	6903129.959 ✓	✓	✓	✓	✓
LAT.	+33.145 ✓	+13.523 ✓	-8.128 ✓	-28.655 ✓	-50.026 ✓
FILE COORD.	6903163.092 ✓	6903143.482 ✓	6903121.550 ✓	6903101.304 ✓	6903079.933 ✓
STA. EASTING	594217.498 ✓				
DEP.	+40.498 ✓	+17.946 ✓	-3.481 ✓	-26.085 ✓	-46.534 ✓
HOLE CO-ORD	594258.005 ✓	594235.444 ✓	594215.482 ✓	594191.413 ✓	594170.964 ✓

D.D.H. LOCATIONS

CALCULATION SHEET.

DA

VG #1 TRAV.

BACKSIGHT	A				
STATION	B				
FORESIGHT	81-VR-06	81-VR-07	81-VR-08	81-VR-09	81-VR-10
HORZ. DIST.	70.179 ✓	38.983 ✓	7.688 ✓	22.283 ✓	52.243 ✓
H.I.	+1.527 ✓	- ✓	- ✓	- ✓	- ✓
H.P.	-1.220 ✓	- ✓	- ✓	- ✓	- ✓
DIFF.	-11.736	-6.912	-1.887	+3.298	+7.106
STA. ELEV.	1157.666 ✓	✓	✓	✓	✓
DIFF.	-11.429	-6.605	-1.580	+3.605	+7.413
COLLAR	1146.237 ✓	1151.061 ✓	1156.086 ✓	1161.271 ✓	1165.079 ✓
AZIMUTH FS	138-46-03	✓	✓	✓	✓
TOP 180°	+180°	-	-	-	-
B.S. AZIMUTH	318-46-03	318-46-03	318-46-03	318-46-03	318-46-03
HORZ. <	271-49-48	271-25-01	273-12-53	85-54-53	88-47-11
AZIMUTH	230-35-51	230-11-04	231-58-56	44-40-56	47-33-14
BEARING					
STA. NORTHING	6903078.277				
LAT.	-24.547	-24.962	-4.735	+15.844	+35.326
HLE COORD.	6903033.730	6903053.315	6903073.542	6903094.121	6903113.601
STA. EASTING	594262.789				
DEP.	-54.228	-29.943	-6.057	+15.669	+38.625
HOLE CO-ORD	594208.551	594232.846	594256.732	594278.458	594301.415

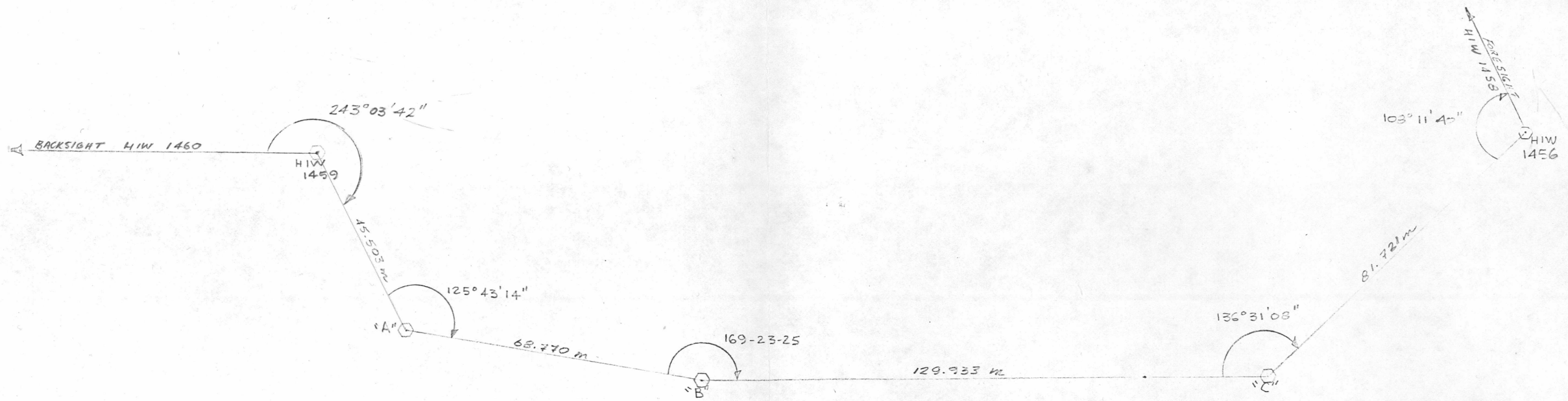
D.D.H. LOCATIONS

CALCULATION SHEET.

DA

VG TRAVERSE # 1

BACKSIGHT	B	✓	✓	✓	✓
STATION	C	✓	✓	✓	✓
FORESIGHT	81-VR-17	81-VR-13	81-VR-35	81-VR-16	81-VR-14
HORZ. DIST.	91.995	61.676	33.930	31.220	31.964
H. I.	+ 1.442	✓	✓	✓	✓
V. P.	- 1.220	✓	✓	✓	✓
DIFF.	- 6.528	- 5.699	- 3.904	- 3.899	+ 1.883
STA. ELEV.	1153.894	✓	✓	✓	✓
DIFF.	- 6.306	- 5.477	- 3.682	- 3.677	+ 2.105
COLLAR	1147.588	1148.417	1150.212	1150.217	1155.999
AZIMUTH FS.	128-09-29	✓	✓	✓	✓
Top 180°	180-00-00	✓	✓	✓	✓
B.S. AZIMUTH	308-09-29	308-09-29	308-09-29	308-09-29	308-09-29
HORZ. <	285-21-33	288-02-24	286-55-58	292-05-58	84-41-30
AZIMUTH	233-31-02	236-11-53	235-05-27	240-15-27	32-50-59
BEARING					
STA. NORTHING	6902998.051	✓	✓	✓	✓
LAT.	- 54.698	- 34.312	- 19.417	- 15.489	+ 26.853
HOLE CO-ORD.	6902943.353	6902963.739	6902978.634	6902982.563	6903024.904
STA. EASTING	594364.879	✓	✓	✓	✓
DEP.	- 73.967	- 51.251	- 27.825	- 27.107	+ 17.338
HOLE CO-ORD	594290.912	594313.628	594337.054	594337.772	594382.217



VANGORDA TRAVERSE #1 FOR D.D.H.'S

81-VR-01 \rightarrow 81-VR-17 & 81-VR-35

SURVEYED BY: D. HENNINGSEN & J. MOROZ

DATE: MAY 25/81

SCALE: 1 : 1000