Results of Directional Survey

API number:	30-025-37525			
OGRID:		Operator:	SAMSON RESOURCES CO	
		Property:	LEA FEDERAL	# 21

surface	ULSTR:	D	12	T	20S	R	34E
			810 FNL		810 FWL		
BH Loc	ULSTR:	D	12	T	20S	R	34E
			930 FNL		690 FWL		

	MD	N/S	E/W	VD
	9500	-56.43	-28.35	9496.94
TOP PERFS/OH	**9562**	-64.07	-24.69	9558.35
	9600	-68.75	-22.44	9595.99
	11004	-119.40	-119.40	10978.72
BOT PERFS/OH	**11022**	-119.48	-119.48	10996.70
	11067	-119.67	-119.67	11041.64

NEXT TO LAST	11004	-119.40	-119.40	10978.72
LAST READING	11067	-119.67	-119.67	11041.64
TD	**11153**	-120.04	-120.04	11127.53

Surface Location	810	FN	810	FW
Projected BHL	930	FN	690	FW
Location of				
Top Perfs/OH	874	FN	785	FW
Bottom Perfs/OH	929	FN	691	FW

SUMMARY of Subsurface Locations

Surface Location	D-12-20S-34E	810	FN	810	FW	Vert. Depth
Top Perfs/OH	D-12-20S-34E	874	FN	785	FW	9558.35
Bottom Perfs/OH	D-12-20S-34E	929	FN	691	FW	10996.70
Projected TD	D-12-20S-34E	930	FN	690	FW	11127.53

Scientific Drilling

SUR: D-12-20s-34e, 810/N & 310/W
BHL: D-12-20s-34e, 930/N & 690/W
API # 30-025-37525

SAMSON RESOURCES

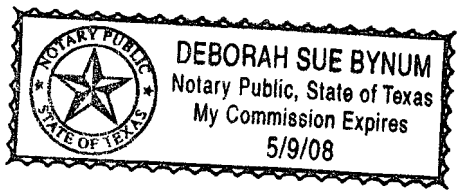
Field: Lea
Site: Lea County, NM
Well: Lea Federal #21
Wellpath: VH - Job #32K0107086/135
Survey: 01/26/07 & 02/14/07

This survey is correct to the best of my knowledge
and is supported by actual field data.

.....Company Representative

Notorized this date 14th of March, 2007.

Deborah Sue Bynum
Notary Signature
County of Midland
State of Texas



Scientific Drilling

Scientific Drilling International

Survey Report

Company:	SAMSON RESOURCES	**Date:**	03/13/2007	**Time:**	14:36:41	**Page:**	1
Field:	Lea	**Co-ordinate(NE) Reference:**	Site: Lea County, NM, Grid North				
Site:	Lea County, NM	**Vertical (TVD) Reference:**	SITE 0.0				
Well:	Lea Federal #21	**Section (VS) Reference:**	Well (0.00N,0.00E,188.91Azi)				
Wellpath:	VH - Job #32K0107086/135	**Survey Calculation Method:**	Minimum Curvature		**Db:**	Sybase	

Survey:	01/26/07 & 02/14/07 KSRG 0'-3450' & 3500'-9680'	**Start Date:**	01/26/2007
Company:	Scientific Drilling Internatio	**Engineer:**	Gonzales w/GeoGyro
Tool:	Keeper;Keeper Gyro	**Tied-to:**	From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.59	25.92	100.00	-0.49	0.46	0.23	0.59	0.51	25.92
200.00	0.56	27.60	199.99	-1.45	1.36	0.68	0.03	1.52	26.46
300.00	0.59	29.71	299.99	-2.39	2.24	1.16	0.04	2.52	27.34
400.00	0.58	32.23	399.98	-3.34	3.11	1.68	0.03	3.54	28.39
500.00	0.42	17.86	499.98	-4.16	3.89	2.07	0.20	4.41	27.96
600.00	0.19	353.79	599.98	-4.69	4.41	2.16	0.26	4.91	26.12
700.00	0.28	310.42	699.98	-4.97	4.73	1.96	0.19	5.12	22.47
800.00	0.44	295.63	799.97	-5.21	5.05	1.42	0.18	5.25	15.74
900.00	0.50	293.45	899.97	-5.43	5.39	0.68	0.06	5.44	7.16
1000.00	0.45	278.74	999.97	-5.54	5.63	-0.11	0.13	5.63	358.87
1100.00	0.48	276.83	1099.96	-5.52	5.74	-0.92	0.03	5.81	350.94
1200.00	0.48	280.78	1199.96	-5.52	5.86	-1.74	0.03	6.12	343.45
1300.00	0.49	286.64	1299.96	-5.59	6.06	-2.56	0.05	6.58	337.09
1400.00	0.55	287.61	1399.95	-5.72	6.33	-3.43	0.06	7.20	331.55
1500.00	0.64	283.18	1499.95	-5.84	6.60	-4.43	0.10	7.95	326.14
1600.00	0.67	288.30	1599.94	-5.98	6.92	-5.53	0.07	8.86	321.35
1700.00	0.56	292.94	1699.94	-6.19	7.29	-6.54	0.12	9.79	318.12
1800.00	0.31	307.99	1799.93	-6.44	7.65	-7.20	0.27	10.50	316.73
1900.00	0.17	315.62	1899.93	-6.66	7.92	-7.52	0.14	10.92	316.50
2000.00	0.10	3.17	1999.93	-6.84	8.11	-7.62	0.13	11.13	316.81
2100.00	0.09	6.29	2099.93	-7.00	8.28	-7.60	0.01	11.24	317.44
2200.00	0.18	21.29	2199.93	-7.23	8.50	-7.54	0.10	11.36	318.45
2300.00	0.28	36.74	2299.93	-7.60	8.84	-7.33	0.12	11.49	320.34
2400.00	0.43	49.46	2399.93	-8.10	9.28	-6.90	0.17	11.57	323.37
2500.00	0.40	41.23	2499.93	-8.68	9.79	-6.39	0.07	11.69	326.88
2600.00	0.39	43.71	2599.92	-9.26	10.30	-5.92	0.02	11.88	330.10
2700.00	0.62	53.44	2699.92	-9.92	10.87	-5.25	0.24	12.07	334.21
2800.00	1.12	71.30	2799.91	-10.76	11.50	-3.89	0.56	12.14	341.31
2900.00	1.61	76.10	2899.88	-11.76	12.15	-1.60	0.50	12.26	352.49
3000.00	2.03	78.72	2999.83	-12.91	12.84	1.50	0.43	12.92	6.66
3100.00	2.26	74.75	3099.76	-14.33	13.70	5.14	0.27	14.63	20.55
3200.00	2.63	72.43	3199.67	-16.16	14.91	9.23	0.38	17.54	31.75
3300.00	2.56	69.34	3299.57	-18.29	16.39	13.50	0.16	21.24	39.48
3400.00	1.88	62.13	3399.49	-20.37	17.95	17.04	0.73	24.75	43.52
3500.00	0.63	27.50	3499.47	-22.06	19.44	18.46	1.41	26.81	43.52
3600.00	0.30	235.15	3599.46	-22.40	19.78	18.50	0.91	27.08	43.09
3700.00	1.10	221.62	3699.46	-21.41	18.91	17.65	0.81	25.86	43.02
3800.00	1.75	221.49	3799.42	-19.32	17.05	16.00	0.65	23.38	43.18
3900.00	1.79	222.40	3899.38	-16.73	14.75	13.93	0.05	20.29	43.37
4000.00	1.74	222.38	3999.33	-14.16	12.48	11.86	0.05	17.21	43.54
4100.00	1.94	222.86	4099.28	-11.49	10.11	9.68	0.20	14.00	43.75
4200.00	2.32	225.75	4199.21	-8.47	7.46	7.08	0.39	10.29	43.51
4300.00	2.16	226.78	4299.13	-5.36	4.76	4.26	0.16	6.38	41.83
4400.00	1.67	230.11	4399.08	-2.78	2.53	1.77	0.50	3.09	34.90
4500.00	1.60	230.25	4499.04	-0.63	0.71	-0.42	0.07	0.82	328.93
4600.00	1.69	221.89	4598.99	1.65	-1.29	-2.48	0.26	2.80	242.63
4700.00	1.63	224.86	4698.95	4.04	-3.39	-4.47	0.10	5.61	232.82
4800.00	1.54	226.62	4798.91	6.26	-5.32	-6.45	0.10	8.36	230.47

Scientific Drilling

Scientific Drilling International
Survey Report

Company:	SAMSON RESOURCES	**Date:**	03/13/2007	**Time:**	14:36:41	**Page:**	2
Field:	Lea	**Co-ordinate(NE) Reference:**	Site: Lea County, NM, Grid North				
Site:	Lea County, NM	**Vertical (TVD) Reference:**	SITE 0.0				
Well:	Lea Federal #21	**Section (VS) Reference:**	Well (0.00N,0.00E,188.91Azi)				
Wellpath:	VH - Job #32K0107086/135	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase		

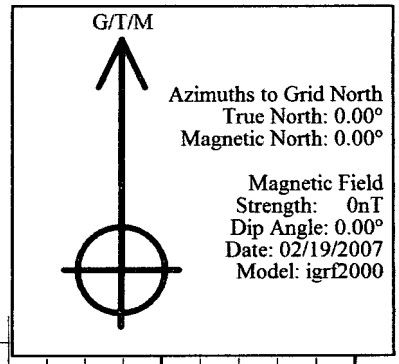
Survey

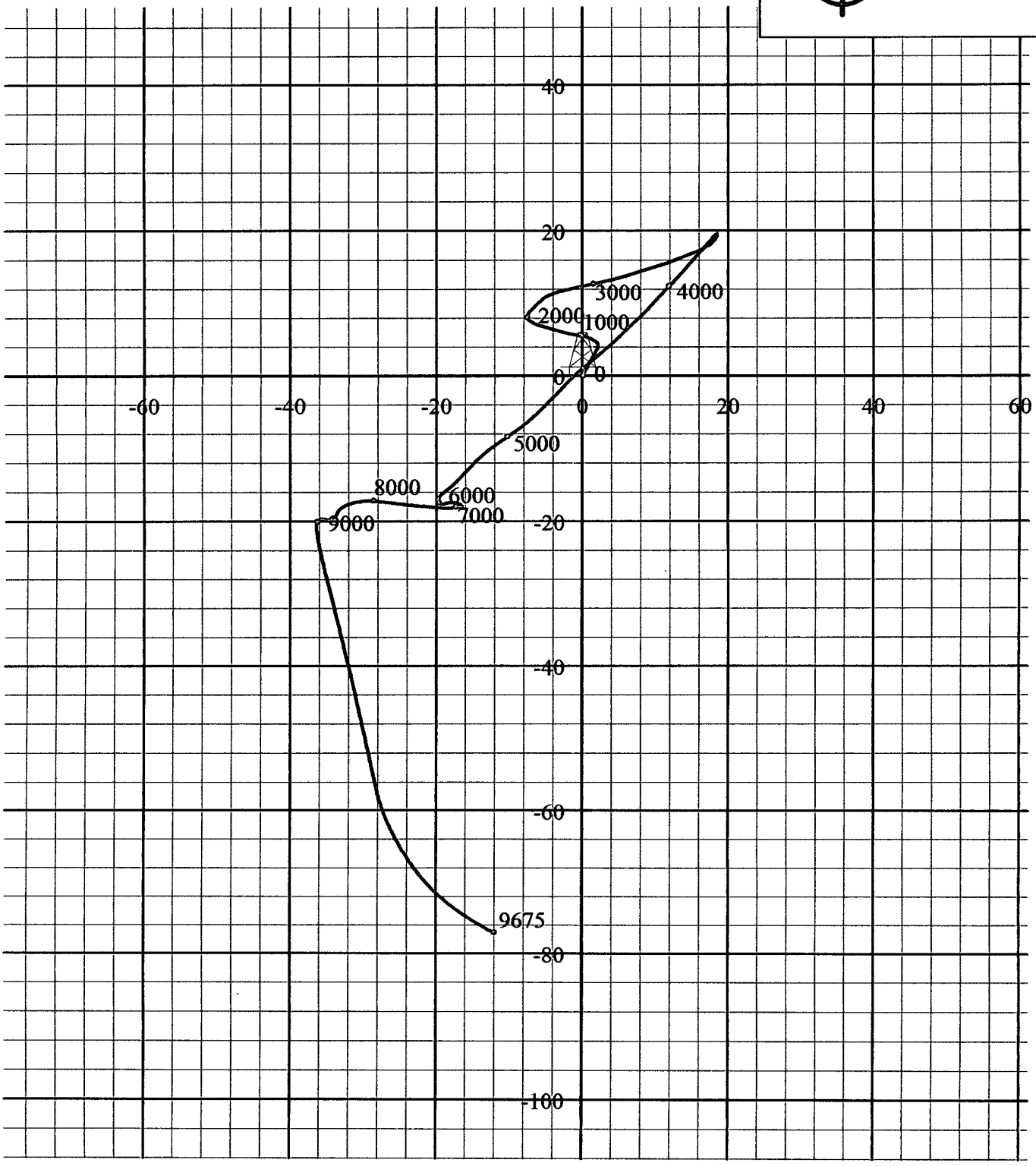
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	1.36	233.05	4898.88	8.17	-6.96	-8.38	0.24	10.89	230.28
5000.00	1.32	235.75	4998.85	9.81	-8.32	-10.28	0.07	13.22	231.00
5100.00	1.44	234.60	5098.83	11.48	-9.70	-12.25	0.12	15.62	231.64
5200.00	1.39	226.29	5198.80	13.32	-11.26	-14.15	0.21	18.09	231.49
5300.00	1.22	221.78	5298.77	15.18	-12.89	-15.74	0.20	20.35	230.67
5400.00	0.81	223.97	5398.75	16.65	-14.20	-16.94	0.41	22.10	230.03
5500.00	0.81	230.29	5498.74	17.76	-15.16	-17.97	0.09	23.51	229.86
5600.00	0.58	230.26	5598.74	18.67	-15.93	-18.91	0.23	24.72	229.88
5700.00	0.30	233.45	5698.73	19.23	-16.41	-19.51	0.28	25.49	229.92
5800.00	0.22	186.03	5798.73	19.61	-16.76	-19.74	0.22	25.89	229.67
5900.00	0.13	189.32	5898.73	19.92	-17.06	-19.78	0.09	26.12	229.21
6000.00	0.20	156.35	5998.73	20.18	-17.33	-19.72	0.12	26.26	228.69
6100.00	0.27	110.23	6098.73	20.37	-17.57	-19.43	0.20	26.20	227.87
6200.00	0.40	64.68	6198.73	20.22	-17.51	-18.90	0.29	25.76	227.19
6300.00	0.44	90.56	6298.73	19.97	-17.36	-18.20	0.19	25.15	226.35
6400.00	0.48	94.79	6398.72	19.88	-17.40	-17.40	0.05	24.60	224.99
6500.00	0.43	123.69	6498.72	20.01	-17.64	-16.67	0.23	24.27	223.37
6600.00	0.12	234.75	6598.72	20.24	-17.91	-16.44	0.49	24.31	222.54
6700.00	0.15	285.59	6698.72	20.30	-17.94	-16.65	0.12	24.47	222.87
6800.00	0.11	271.32	6798.72	20.30	-17.90	-16.87	0.05	24.60	223.31
6900.00	0.08	264.17	6898.72	20.33	-17.90	-17.04	0.03	24.72	223.58
7000.00	0.23	261.07	6998.72	20.41	-17.94	-17.31	0.15	24.93	223.96
7100.00	0.42	262.28	7098.72	20.57	-18.02	-17.87	0.19	25.38	224.75
7200.00	0.44	265.41	7198.71	20.77	-18.10	-18.61	0.03	25.96	225.80
7300.00	0.54	275.79	7298.71	20.88	-18.09	-19.46	0.13	26.57	227.10
7400.00	0.59	277.60	7398.70	20.92	-17.97	-20.44	0.05	27.22	228.68
7500.00	0.56	274.29	7498.70	20.97	-17.87	-21.44	0.04	27.91	230.20
7600.00	0.74	274.93	7598.69	21.05	-17.77	-22.57	0.18	28.73	231.78
7700.00	0.91	275.93	7698.68	21.14	-17.64	-24.01	0.17	29.79	233.70
7800.00	0.92	277.66	7798.67	21.20	-17.45	-25.59	0.03	30.97	235.71
7900.00	0.92	275.79	7898.66	21.26	-17.26	-27.19	0.03	32.20	237.59
8000.00	0.76	272.69	7998.65	21.38	-17.15	-28.65	0.17	33.39	239.10
8100.00	0.60	268.34	8098.64	21.54	-17.13	-29.83	0.17	34.40	240.13
8200.00	0.57	260.27	8198.63	21.80	-17.23	-30.85	0.09	35.33	240.81
8300.00	0.62	250.84	8298.63	22.21	-17.49	-31.85	0.11	36.33	241.22
8400.00	0.44	239.06	8398.62	22.71	-17.87	-32.69	0.21	37.25	241.34
8500.00	0.15	245.79	8498.62	23.03	-18.12	-33.14	0.29	37.77	241.33
8600.00	0.30	213.75	8598.62	23.34	-18.39	-33.40	0.19	38.13	241.16
8700.00	0.73	203.98	8698.62	24.19	-19.19	-33.81	0.44	38.87	240.42
8800.00	0.46	275.15	8798.61	24.83	-19.74	-34.46	0.73	39.71	240.20
8900.00	0.73	279.31	8898.61	24.86	-19.60	-35.49	0.27	40.54	241.10
9000.00	0.64	203.20	8998.60	25.39	-20.01	-36.34	0.85	41.48	241.17
9100.00	2.78	169.63	9098.55	28.22	-22.91	-36.12	2.27	42.77	237.62
9200.00	3.65	165.78	9198.40	33.44	-28.38	-34.91	0.90	44.99	230.89
9300.00	4.62	166.11	9298.13	40.08	-35.37	-33.16	0.97	48.48	223.15
9400.00	6.23	167.21	9397.68	48.83	-44.57	-30.99	1.61	54.29	214.81
9500.00	7.72	167.64	9496.94	60.14	-56.43	-28.35	1.49	63.15	206.68
9600.00	8.38	142.17	9595.99	71.39	-68.75	-22.44	3.60	72.32	198.08
9680.00	11.12	118.36	9674.85	77.96	-77.02	-12.07	6.02	77.96	188.91

S W

Scientific Drilling

Field: Lea
Site: Lea County, NM
Well: Lea Federal #21
Wellpath: VH - Job #32K0107086/135
Survey: 01/26/07 & 02/14/07





South(-)/North(+) [20ft/in]

West(-)/East(+) [20ft/in]

LEAM *Drilling Systems, Inc.*

Survey Calculations

LEAM Job Number: D-3923-MD

Operator: SAMSON RESOURCES ***Location:*** LEA CO., NM ***Lease/Well:*** LEA FEDERAL UNIT #21

Calculation Method: Minimum Curvature ***Proposed Azimuth:*** 0.00 ***Bearing:*** N0.00E

Units: English(ft)

MeasDepth	CrsLen	Drift	Azimuth	Bearing	TVD	Vsect	NS(±)	EW(±)	Build	Turn	Dogleg
TIED INTO SCIENTIFIC GYRO											
9680.00	0.00	11.20	118.36	S61.64E	9674.85	-77.02	-77.02	-12.07	0.00	0.00	0.00
9770.00	90.00	14.20	109.60	S70.40E	9762.65	-84.88	-84.88	6.03	3.33	-9.73	3.95
9833.00	63.00	15.70	108.10	S71.90E	9823.51	-90.12	-90.12	21.41	2.38	-2.38	2.46
9896.00	63.00	15.00	107.30	S72.70E	9884.26	-95.19	-95.19	37.30	-1.11	-1.27	1.16
9959.00	63.00	14.60	106.40	S73.60E	9945.17	-99.86	-99.86	52.70	-0.63	-1.43	0.73
10055.00	96.00	13.20	102.30	S77.70E	10038.36	-105.61	-105.61	75.01	-1.46	-4.27	1.78
10150.00	95.00	12.20	102.00	S78.00E	10131.04	-110.01	-110.01	95.43	-1.05	-0.32	1.06
10244.00	94.00	10.60	99.00	S81.00E	10223.18	-113.42	-113.42	113.69	-1.70	-3.19	1.81
10339.00	95.00	9.50	96.60	S83.40E	10316.72	-115.69	-115.69	130.11	-1.16	-2.53	1.24
10435.00	96.00	8.40	96.20	S83.80E	10411.55	-117.36	-117.36	144.95	-1.15	-0.42	1.15
10529.00	94.00	6.30	95.50	S84.50E	10504.77	-118.60	-118.60	156.91	-2.23	-0.74	2.24
10624.00	95.00	4.10	89.20	N89.20E	10599.38	-119.05	-119.05	165.49	-2.32	-6.63	2.39
10688.00	64.00	3.80	88.20	N88.20E	10663.23	-118.95	-118.95	169.90	-0.47	-1.56	0.48
10816.00	128.00	3.10	92.80	S87.20E	10790.99	-118.99	-118.99	177.60	-0.55	3.59	0.59
10909.00	93.00	3.20	91.90	S88.10E	10883.85	-119.19	-119.19	182.70	0.11	-0.97	0.12
11004.00	95.00	2.90	92.70	S87.30E	10978.72	-119.40	-119.40	187.75	-0.32	0.84	0.32
11067.00	63.00	2.70	97.90	S82.10E	11041.64	-119.67	-119.67	190.82	-0.32	8.25	0.51
STRAIGHT LINE PROJECTION TO BIT.											
11150.00	83.00	2.70	97.90	S82.10E	11124.55	-120.21	-120.21	194.69	0.00	0.00	0.00
							S	E			

Copyright 2001 MONOLITH Software