

Results of Directional Survey

API number:	30-025-39671		
OGRID:		Operator:	MACK ENERGY CORP
		Property:	B LEE STATE # 12

surface	ULSTR:	E	07	T 18S	R 35E
				1560 FNL	1215 FWL

BH Loc	ULSTR:	E	07	T 18S	R 35E
	6500 MD		6484.6 TVD	1653 FNL	927 FWL

Top Perf/OH	ULSTR:	E	07	T 18S	R 35E
	5850 MD		5834.9 TVD	1669 FNL	931 FWL

Bot Perf/OH	ULSTR:	E	07	T 18S	R 35E
	6203 MD		6187.8 TVD	1663 FNL	929 FWL

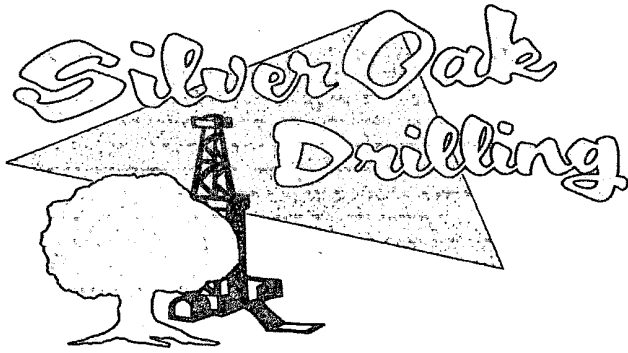
	MD	N/S	E/W	VD
	5780	-110.27	-283.67	5764.86
TOP PERFS/OH	5850	-109.36	-284.22	5834.85
	5907	-108.61	-284.66	5891.84
	6193	-102.89	-285.70	6177.78
BOT PERFS/OH	6203	-102.57	-285.72	6187.77
	6352	-97.81	-286.08	6336.70

NEXT TO LAST	6352	-97.81	-286.08	6336.70
LAST READING	6451	-94.71	-287.03	6435.64
TD	6500	-93.18	-287.50	6484.61

Surface Location	1560 FN	1215 FW
Projected BHL	1653 FN	927 FW
Location of		
Top Perfs/OH	1669 FN	931 FW
Bottom Perfs/OH	1663 FN	929 FW

SUMMARY of Subsurface Locations

Surface Location	E-07-18S-35E	1560 FN	1215 FW	Vert. Depth
Top Perfs/OH	E-07-18S-35E	1669 FN	931 FW	5834.85
Bottom Perfs/OH	E-07-18S-35E	1663 FN	929 FW	6187.77
Projected TD	E-07-18S-35E	1653 FN	927 FW	6484.61



PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

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FEB 16 2011
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SUR: E-07-18s-35e, 1560/N & 1215/W
BHL: E-07-18s-35e, 1653/N & 927/W
API #30-025-39671

August 6, 2010

Mack Energy Corporation
PO Box 960
Artesia, NM 88211-0960

RE: B Lee State #12
1650' FNL & 990' FWL
Sec. 7, T18S, R35E
Lea County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

A handwritten signature in black ink, appearing to read "Eddie C. LaRue".

Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 6th day of August, 2010.

A handwritten signature in black ink, appearing to read "Regina L. Garner".

Notary Public

OFFICIAL SEAL
REGINIA L. GARNER
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires Aug. 30, 2012

Pason DataHub Deviation Survey
 # Well Dossier 1279931686 - B. LEE ST. # 12
 #

# Date	Depth	Deviation	Direction	TVD
7/24/2010	147	0.20	334.70	0.00
7/24/2010	296	0.20	24.60	0.00
7/24/2010	448	0.10	19.60	514.00
7/24/2010	599	0.60	347.60	665.00
7/24/2010	902	0.60	351.11	0.00
7/24/2010	1060	0.60	355.60	0.00
7/25/2010	1219	0.70	20.60	1285.00
7/25/2010	1377	0.70	10.70	1443.00
7/25/2010	1536	0.80	45.90	1603.00
7/27/2010	1642	0.88	18.25	1641.92
7/27/2010	1801	1.85	313.12	1800.88
7/27/2010	1896	4.57	301.07	1895.72
7/27/2010	1991	4.75	275.80	1990.42
7/27/2010	2086	5.63	258.65	2085.03
7/27/2010	2182	5.19	249.26	2180.61
7/27/2010	2277	5.89	236.38	2275.17
7/27/2010	2372	5.63	236.01	2369.69
7/27/2010	2468	4.92	237.70	2465.28
7/27/2010	2562	50.10	237.63	2558.92
7/27/2010	2721	4.84	232.99	2717.33
7/28/2010	2849	4.92	235.92	2844.87
7/28/2010	2976	5.80	232.32	2971.31
7/28/2010	3103	4.92	235.28	3097.76
7/28/2010	3229	5.63	237.30	3223.22
7/28/2010	3357	5.72	241.59	3350.59
7/28/2010	3495	5.28	242.04	3489.95
7/28/2010	3622	5.45	251.33	3614.41
7/28/2010	3750	5.80	248.14	3741.79
7/29/2010	3876	4.57	246.68	3867.27
7/29/2010	4002	5.98	245.15	3992.73
7/29/2010	4129	5.36	243.49	4119.11
7/29/2010	4256	6.33	242.73	4245.45
7/29/2010	4383	5.78	242.39	4381.67
7/29/2010	4510	6.51	244.73	4497.97
7/30/2010	4637	7.21	258.20	4624.07
7/30/2010	4764	5.89	262.44	4750.24
7/30/2010	4891	5.36	246.28	4876.64
7/30/2010	5018	4.48	256.08	5003.17
7/30/2010	5145	2.37	245.99	5129.94
7/30/2010	5273	0.97	168.05	5257.89
7/31/2010	5400	0.70	187.25	5384.88
7/31/2010	5524	0.79	249.99	5508.87
7/31/2010	5653	0.35	236.29	5637.86
7/31/2010	5780	0.53	340.07	5764.86
7/31/2010	5907	1.23	324.70	5891.84
7/31/2010	6034	0.88	351.18	6018.82
8/1/2010	6193	1.76	1.96	6177.78
8/1/2010	6352	1.93	349.95	6336.70
8/2/2010	6451	1.85	335.91	6336.70

EOF

PATHFINDER

An Operating Unit of Smith International, Inc.

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FEB 16 2011

DIRECTIONAL SURVEY REPORT HOBBSOCD

MACK ENERGY

B LEE STATE #12

LEA COUNTY, NEW MEXICO

SUR: E-07-18s-35e, 1560/N & 1215/W
BHL: E-07-18s-35e, 1653/N & 927/W
API #30-025-39671

PREPARED BY: FRANCISCO SINISTERRA

Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JOHN PATTERSON
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 07-27-10 TO 08-02-10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

MACK ENERGY
B LEE STATE #12
LEA COUNTY, NM
RIG: SILVER OAK 2
9. SURVEY CERTIFIED FROM: 1642 TO 6451 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 302.41 FEET ON A BEARING OF 252.04 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 6500.00 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


FRANCISCO SINISTERRA
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 07/26/2010
Date Completed: 08/02/2010

MACK ENERGY
B LEE ST #12
LEA COUNTY, NEW MEXICO
Rig:SILVER OAK #2
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:J PATTERSON
D PHILLIPS

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.45.55.0299 N LON:103.30.3.2007 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 755890.8000 Y: 643128.1000
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.25° EAST TO GRID
Vertical Section Plane: 248.00
Survey Vert. Reference: 17.50' Rotary Table To Ground
Altitude:3977.00' Ground To MSL

Measured Depth	6500.00	(feet)
Inclination	1.85	(deg)
Azimuth	335.91	(deg)
True Vertical Depth	6484.62	(feet)
Vertical Section	301.66	(feet)
Survey X cord	755603.10	(feet)
Survey Y cord	643034.81	(feet)
Survey Lat	32.76503590 N	(deg)
Survey Lon	103.50182730 W	(deg)
Rectangular Corr. N/S	93.27 S	(feet)
Rectangular Corr. E/W	287.67 W	(feet)
Closure Distance	302.41	(feet)
Direction of Closure	252.04	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY
 B LEE ST #12
 LEA COUNTY, NEW MEXICO
 Rig: SILVER OAK #2
 PathFinder Office Supervisor: FRANCISCO SINISTERRA
 PathFinder Field Engineers: J PATTERSON
 D PHILLIPS

Survey Horiz. Reference: WELLHEAD
 Ref Coordinates: LAT: 32.45.55.0299 N LON: 103.30.3.2007 W
 GRID Reference: NAD27 new mexico east Transverse Mercator
 Ref GRID Coord: X: 755890.8000 Y: 643128.1000
 North Aligned To: GRID NORTH
 Total Magnetic Correction: 7.25° EAST TO GRID
 Vertical Section Plane: 248.00
 Survey Vert. Reference: 17.50' Rotary Table To Ground
 Altitude: 3977.00' Ground To MSL

Survey Calculations by RX4 using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
TIE INTO NAVIGATE ENERGY SERVICES SURVEY AT 1536' MD.										
1536.00	0.80	45.90	1535.93	0.00	-5.53	12.32 N	0.99 E	12.36@	4.59	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
1642.00	0.88	18.25	1641.92	106.00	-6.74	13.61 N	1.78 E	13.72@	7.44	0.39
1801.00	1.85	313.12	1800.88	159.00	-6.45	16.52 N	0.29 E	16.52@	0.99	1.06
1896.00	4.57	301.07	1895.72	95.00	-3.53	19.52 N	4.08 W	19.95@	348.21	2.93
1991.00	4.75	275.80	1990.42	95.00	2.22	21.87 N	11.23 W	24.59@	332.82	2.15
2086.00	5.63	258.65	2085.03	95.00	10.28	21.36 N	19.72 W	29.06@	317.29	1.87
2182.00	5.19	249.26	2180.61	96.00	19.25	18.89 N	28.39 W	34.10@	303.64	1.03
2277.00	5.89	236.38	2275.17	95.00	28.32	14.67 N	36.47 W	39.31@	291.91	1.50
2372.00	5.63	236.01	2369.69	95.00	37.65	9.37 N	44.39 W	45.37@	281.91	0.28
2468.00	4.92	237.70	2465.28	96.00	46.31	4.53 N	51.78 W	51.98@	275.00	0.76
2562.00	5.01	237.63	2558.93	94.00	54.31	0.18 N	58.65 W	58.65@	270.18	0.10
2721.00	4.84	232.99	2717.34	159.00	67.62	7.57 S	69.87 W	70.28@	263.81	0.27
2849.00	4.92	235.92	2844.88	128.00	78.20	13.90 S	78.73 W	79.95@	259.99	0.20
2976.00	5.80	232.32	2971.32	127.00	89.71	20.87 S	88.32 W	90.75@	256.70	0.74
3103.00	4.92	235.28	3097.76	127.00	101.20	27.90 S	97.87 W	101.77@	254.09	0.73
3229.00	5.63	237.30	3223.23	126.00	112.54	34.31 S	107.52 W	112.86@	252.30	0.58
3357.00	5.72	241.59	3350.60	128.00	125.05	40.74 S	118.41 W	125.22@	251.01	0.34
3495.00	5.28	242.04	3487.97	138.00	138.20	46.99 S	130.07 W	138.30@	250.14	0.32
3622.00	5.45	251.35	3614.41	127.00	150.03	51.66 S	140.94 W	150.11@	249.87	0.70
3750.00	5.80	248.14	3741.80	128.00	162.57	56.01 S	152.71 W	162.65@	249.86	0.37
3876.00	4.57	246.68	3867.28	126.00	173.95	60.37 S	163.23 W	174.03@	249.70	0.98
4002.00	5.98	245.15	3992.74	126.00	185.53	65.11 S	173.79 W	185.59@	249.46	1.12
4129.00	5.36	243.49	4119.12	127.00	198.05	70.54 S	185.10 W	198.09@	249.14	0.50
4256.00	6.33	242.73	4245.46	127.00	210.93	76.40 S	196.63 W	210.95@	248.77	0.77

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY
 B LEE ST #12
 LEA COUNTY, NEW MEXICO
 RIG:SILVER OAK #2

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL		Closure		DLS (dg/100ft)
						Rectangular (ft)	Offsets (ft)	Dist (ft)	Dir (deg)	
4383.00	5.98	242.39	4371.73	127.00	224.49	82.67 S	208.72 W	224.50@	248.39	0.28
4510.00	6.51	244.73	4497.97	127.00	238.26	88.81 S	221.09 W	238.26@	248.12	0.46
4637.00	7.21	258.20	4624.07	127.00	253.29	93.51 S	235.40 W	253.30@	248.33	1.38
4764.00	5.89	262.44	4750.24	127.00	267.45	96.00 S	249.67 W	267.49@	248.97	1.11
4891.00	5.36	246.28	4876.64	127.00	279.69	99.24 S	261.56 W	279.75@	249.22	1.31
5018.00	4.48	256.08	5003.17	127.00	290.53	102.82 S	271.80 W	290.60@	249.28	0.96
5145.00	2.37	245.99	5129.94	127.00	298.07	105.09 S	279.02 W	298.15@	249.36	1.72
5273.00	0.97	168.05	5257.89	128.00	300.90	107.22 S	281.21 W	300.96@	249.13	1.85
5400.00	0.70	187.25	5384.88	127.00	301.47	109.04 S	281.09 W	301.50@	248.80	0.30
5524.00	0.79	249.99	5508.87	124.00	302.69	110.09 S	281.98 W	302.71@	248.67	0.63
5653.00	0.35	236.29	5637.86	129.00	303.97	110.61 S	283.15 W	303.99@	248.66	0.35
5780.00	0.53	340.07	5764.86	127.00	304.32	110.27 S	283.67 W	304.35@	248.76	0.55
5907.00	1.23	324.70	5891.84	127.00	304.62	108.61 S	284.66 W	304.67@	249.12	0.58
6034.00	0.88	351.18	6018.82	127.00	304.71	106.53 S	285.60 W	304.82@	249.54	0.47
6193.00	1.76	1.96	6177.78	159.00	303.44	102.89 S	285.70 W	303.66@	250.19	0.57
6352.00	1.93	349.95	6336.70	159.00	301.89	97.81 S	286.08 W	302.34@	251.12	0.27
6451.00	1.85	335.91	6435.64	99.00	301.60	94.71 S	287.03 W	302.25@	251.74	0.47
STRAIGHT LINE PROJECTION TO BIT AT 6500' MD.										
6500.00	1.85	335.91	6484.62	49.00	301.66	93.27 S	287.67 W	302.41@	252.04	0.00

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	MACK ENERGY		
LEASE / WELL No.:	B LEE	STATE #12	
WELL LOCATION:	LEA CO, NEW MEXICO		
COUNTY / STATE / COUNTRY:	LEA COUNTY	NM	USA
RIG:	SILVER OAK #2		
API WELL No:			
JOB No:	101011037 WT-WT		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	PES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.24	LWD Calculated:	7.25
		Agreed Upon:	7.25
X =	755890.800000	Feet	Y = 643128.100000
			Feet
SITE LATITUDE:	32.765286 N	SITE LONGITUDE:	103.500889 W
GRID SYSTEM:	TRUE <input type="checkbox"/>	UTM <input checked="" type="checkbox"/>	LAMBERT <input type="checkbox"/>
PROPOSED DRIFT DIRECTION:	248		
KELLY BUSHING ELEVATION:	19		
ALTITUDE:	3977	Feet	WATER DEPTH:
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	1536		
DRIFT ANGLE:	0.80		
DRIFT DIRECTION:	45.90		
TRUE VERTICAL DEPTH:	1535.93		
VERTICAL SECTION:	12.32		
RECTANGULAR COORDINATE (N / S) :	12.32		
RECTANGULAR COORDINATE (E / W) :	0.99		
CLOSURE DISTANCE / DIRECTION:	12.36	4.61	
SURVEY CALCULATION METHOD:	AA <input type="checkbox"/>	MC <input checked="" type="checkbox"/>	RC <input type="checkbox"/>
		BT <input type="checkbox"/>	
SOURCE OF TIE-IN DATA (COMPANY):	NAVIGATE ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	<input checked="" type="checkbox"/> YES		<input type="checkbox"/> NO

WELL PLAN

KICKOFF DEPTH:	1800	TOTAL DEPTH:	6612.7
KICKOFF ANGLE:	1	MAX ANGLE:	5.36

PES Engineers:

[Handwritten Signature]

[Handwritten Signature]

**Signature of both field engineers required if applicable

Directional Driller:

[Handwritten Signature]

DATE: 7/26/10



SWD SURVEY REPORT

Job Number : WNM-2081-S

Report Date : JULY 25,2010

Operator : MACK ENERGY

Lease / Well : B.LEE ST#12

Location : BUCKEYE,NM

Field :

Contractor / Rig : SILVER OAK 2

Directional Company :

MWD Field Rep. : Brandon Ramirez

Tie In Survey Reference : Surface

Calculation Method : MINIMUM CURVATURE

API Number : N/A

Target +N / -S = 0.0'

Target +E / -W = 0.0'

Target TVD = 1600.0'

Magnetic Declination +E / -W = 7.70°

Grid Convergence +E / -W = 0.45°

Total Correction +E / -W = 7.25°

North Reference = Grid

RKB Height = 17.50'

Ground Level Elevation = 3975'

Vertical Section Azimuth = 0.00°

Comments :

SURVEY #0 = TIE IN SURVEY

SURVEY #11= STRAIGHT LINE PROJECTED SURVEY TO BOTTOM HOLE DEPTH

Srv. No.	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (deg/100')
							+N / -S (ft)	+E / -W (ft)	Distance (ft)	Azimuth (deg)	
0	0.00'	0.00°	0.00°		0.00'	0.00'	0.00'	0.00'			
1	147.00'	0.20°	334.70°	147'	147.00'	0.23'	0.23'	-0.11'	0.26'	334.70°	0.14°
2	296.00'	0.20°	24.60°	149'	296.00'	0.70'	0.70'	-0.11'	0.71'	350.91°	0.11°
3	448.00'	0.10°	19.60°	152'	448.00'	1.07'	1.07'	0.04'	1.07'	2.27°	0.07°
4	599.00'	0.60°	347.60°	151'	599.00'	1.97'	1.97'	-0.08'	1.97'	357.58°	0.34°
5	749.00'	0.70°	353.40°	150'	748.99'	3.64'	3.64'	-0.36'	3.66'	354.40°	0.08°
6	902.00'	0.60°	351.10°	153'	901.98'	5.36'	5.36'	-0.59'	5.40'	353.74°	0.07°
7	1060.00'	0.60°	355.60°	158'	1059.97'	7.01'	7.01'	-0.78'	7.05'	353.65°	0.03°
8	1219.00'	0.70°	20.60°	159'	1218.96'	8.74'	8.74'	-0.50'	8.76'	356.71°	0.19°
9	1377.00'	0.70°	10.70°	158'	1376.95'	10.60'	10.60'	0.02'	10.60'	0.09°	0.08°
10	1536.00'	0.80°	45.90°	159'	1535.93'	12.32'	12.32'	0.99'	12.36'	4.61°	0.29°
11	1602.00'	0.80°	45.90°	66'	1601.93'	12.96'	12.96'	1.66'	13.07'	7.28°	0.00°

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MACK ENERGY
B LEE STATE #12
LEA COUNTY, NEW MEXICO
Rig:SILVER OAK 2

Wed Jul 21 17:01:45 2010

Coordinates

Latitude: 32.765286 N (32 deg. 45 min. 55.0299 sec.)
Longitude: 103.500889 W (-103 deg. 30 min. 3.2007 sec.)
Elevation: 3996.00 feet.
Calculation Date: Jul/21/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.7235 degrees
Total Magnetic Field: 0.49038 gauss
Magnetic Declination: 7.703826 degrees
Horizontal Intensity: 0.239807 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.703826 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 755890.8000 feet
Y: 643128.1000 feet
True to Grid: (convergence) -0.450541 degrees
Magnetic to Grid: 7.253286 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.253286 Degs.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MACK ENERGY
B LEE ST #12
LEA COUNTY, NEW MEXICO
Rig:SILVER OAK #2

Mon Jul 26 06:42:56 2010

Coordinates

Latitude: 32.765286 N (32 deg. 45 min. 55.0299 sec.)
Longitude: 103.500889 W (-103 deg. 30 min. 3.2007 sec.)
Elevation: 3994.50 feet.
Calculation Date: Jul/21/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.7235 degrees
Total Magnetic Field: 0.49038 gauss
Magnetic Declination: 7.703827 degrees
Horizontal Intensity: 0.239807 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.703827 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 755890.8000 feet
Y: 643128.1000 feet
True to Grid: (convergence) -0.450541 degrees
Magnetic to Grid: 7.253287 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.253287 Degs.