



PathFinder Planning Report

Company:	Southwestern Energy Production	Date:	10/18/2005	Time:	08:42:55	Page:	1
Field:	Karlsbad Corral Section 11	Co-ordinate(NE) Reference:	Site: Karlsbad Corral 11-2H, Grid North				
Site:	Karlsbad Corral 11-2H	Vertical (TVD) Reference:	SITE 0.0				
Well:	Karlsbad 11 #2H	Section (VS) Reference:	Well (0.00N,0.00E,180.82Azi)				
Wellpath:	Original Hole	Plan:	Plan #1 100605				

Field:	Karlsbad Corral Section 11						
Map System:	US State Plane Coordinate System 1927			Map Zone:	New Mexico, Eastern Zone		
Geo Datum:	NAD27 (Clarke 1866)			Coordinate System:	Site Centre		
Sys Datum:	Mean Sea Level			Geomagnetic Model:	igrf2005		

Site:	Karlsbad Corral 11-2H						
Site Position:		Northing:	ft	Latitude:			
From:	Lease Line	Easting:	ft	Longitude:			
Position Uncertainty:	0.00 ft	North Reference:		Grid			
Ground Level:	3063.00 ft	Grid Convergence:	-0.82 deg				

Well:	Karlsbad 11 #2H			Slot Name:			
Well Position:	+N/-S	0.00 ft	Northing:	0.00 ft	Latitude:	30 59 24.512 N	
	+E/-W	0.00 ft	Easting :	0.00 ft	Longitude:	105 55 44.137 W	
Position Uncertainty:	0.00 ft						

Wellpath:	Orginal Hole		Drilled From:	Surface		
Current Datum:	SITE	Height	0.00 ft	Tie-on Depth:	0.00 ft	
Magnetic Data:	10/6/2005	Above System Datum:	Mean Sea Level	Declination:	8.42 deg	
Field Strength:	49136 nT	Mag Dip Angle:		Direction	60.19 deg	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	ft	deg	
	ft	ft	ft			
	0.00	0.00	0.00	180.82		

Plan:	Plan #1 100605	Date Composed:	10/6/2005
Principal:	No	Version:	1
		Tied-to:	From Surface

Plan Section Information										
MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4838.00	0.00	180.00	4838.00	0.00	0.00	0.00	0.00	0.00	180.00	
5563.29	87.00	180.00	5315.00	-452.66	0.00	12.00	12.00	0.00	180.00	
5583.29	87.00	180.00	5316.05	-472.63	0.00	0.00	0.00	0.00	0.00	
5608.29	90.00	180.00	5316.70	-497.62	0.00	12.00	12.00	0.00	0.00	
7607.77	90.00	180.00	5316.70	-2497.10	0.00	0.00	0.00	0.00	0.00	KC 11-2 PBHL

Survey										
MD	Incl	Azim	TVD	+N/-S	+E/-W	VS	DLS	Build	Turn	Tool/Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	180.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	180.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	180.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	180.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	180.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	180.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	180.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	180.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	180.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	180.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	180.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	180.0								

PathFinder

Planning Report

Company: Southwestern Energy Production
 Field: Karlsbad Corral Section 11
 Site: Karlsbad Corral 11-2H
 Well: Karlsbad 11 #2H
 Wellpath: Original Hole

Date: 10/18/2005 Time: 08:42:55 Page: 2
 Co-ordinate(NE) Reference: Site: Karlsbad Corral 11-2H, Grid North
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,180.82Azi)
 Plan: Plan #1 100605

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1500.00	0.00	180.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1600.00	0.00	180.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1700.00	0.00	180.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	180.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	180.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	180.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	180.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	180.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	180.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	180.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	180.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	180.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	180.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	180.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	180.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	180.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	180.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	180.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	180.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3400.00	0.00	180.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	180.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3600.00	0.00	180.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	180.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	180.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3900.00	0.00	180.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	180.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4100.00	0.00	180.00	4100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4200.00	0.00	180.00	4200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4300.00	0.00	180.00	4300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4400.00	0.00	180.00	4400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4500.00	0.00	180.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4600.00	0.00	180.00	4600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4700.00	0.00	180.00	4700.00	0.00	0.00	0.00	0.00	0.00	0.00	
4800.00	0.00	180.00	4800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4838.00	0.00	180.00	4838.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 4838' w/12° Build R
4850.00	1.44	180.00	4850.00	-0.15	0.00	0.15	12.00	12.00	0.00	
4875.00	4.44	180.00	4874.96	-1.43	0.00	1.43	12.00	12.00	0.00	
4900.00	7.44	180.00	4899.83	-4.02	0.00	4.02	12.00	12.00	0.00	
4925.00	10.44	180.00	4924.52	-7.90	0.00	7.90	12.00	12.00	0.00	
4950.00	13.43	180.00	4948.98	-13.07	0.00	13.07	12.00	12.00	0.00	
4975.00	16.43	180.00	4973.13	-19.51	0.00	19.51	12.00	12.00	0.00	
5000.00	19.43	180.00	4996.91	-27.21	0.00	27.21	12.00	12.00	0.00	
5025.00	22.43	180.00	5020.26	-36.14	0.00	36.14	12.00	12.00	0.00	
5050.00	25.43	180.00	5043.11	-46.28	0.00	46.27	12.00	12.00	0.00	
5075.00	28.43	180.00	5065.39	-57.60	0.00	57.59	12.00	12.00	0.00	
5100.00	31.43	180.00	5087.06	-70.07	0.00	70.06	12.00	12.00	0.00	
5125.00	34.43	180.00	5108.04	-83.66	0.00	83.65	12.00	12.00	0.00	
5150.00	37.43	180.00	5128.28	-98.33	0.00	98.32	12.00	12.00	0.00	
5175.00	40.42	180.00	5147.73	-114.03	0.00	114.02	12.00	12.00	0.00	
5200.00	43.42	180.00	5166.33	-130.73	0.00	130.72	12.00	12.00	0.00	
5225.00	46.42	180.00	5184.03	-148.38	0.00	148.37	12.00	12.00	0.00	
5250.00	49.42	180.00	5200.78	-166.94	0.00	166.92	12.00	12.00	0.00	
5275.00	52.42	180.00	5216.54	-186.34	0.00	186.32	12.00	12.00	0.00	
5300.00	55.42	180.00	5231.26	-206.54	0.00	206.52	12.00	12.00	0.00	

PathFinder

Planning Report

Company: Southwestern Energy Production	Date: 10/18/2005	Time: 08:42:55	Page: 3
Field: Karlsbad Corral Section 11	Co-ordinate(NE) Reference: Site: Karlsbad Corral 11-2H, Grid North		
Site: Karlsbad Corral 11-2H	Vertical (TVD) Reference: SITE 0.0		
Well: Karlsbad 11 #2H	Section (VS) Reference: Well (0.00N,0.00E,180.82Azi)		
Wellpath: Original Hole	Plan: Plan #1 100605		

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5325.00	58.42	180.00	5244.90	-227.49	0.00	227.47	12.00	12.00	0.00	
5350.00	61.42	180.00	5257.43	-249.12	0.00	249.09	12.00	12.00	0.00	
5375.00	64.41	180.00	5268.82	-271.38	0.00	271.35	12.00	12.00	0.00	
5400.00	67.41	180.00	5279.02	-294.20	0.00	294.17	12.00	12.00	0.00	
5425.00	70.41	180.00	5288.01	-317.52	0.00	317.49	12.00	12.00	0.00	
5450.00	73.41	180.00	5295.77	-341.28	0.00	341.25	12.00	12.00	0.00	
5475.00	76.41	180.00	5302.28	-365.42	0.00	365.38	12.00	12.00	0.00	
5500.00	79.41	180.00	5307.52	-389.86	0.00	389.82	12.00	12.00	0.00	
5525.00	82.41	180.00	5311.47	-414.54	0.00	414.50	12.00	12.00	0.00	
5550.00	85.41	180.00	5314.12	-439.40	0.00	439.35	12.00	12.00	0.00	
5563.29	87.00	180.00	5315.00	-452.66	0.00	452.61	12.00	12.00	0.00	Top CC4 / Begin Hold @ 87
5583.29	87.00	180.00	5316.05	-472.63	0.00	472.58	0.00	0.00	0.00	End Hold/Begin Build to L
5600.00	89.01	180.00	5316.63	-489.33	0.00	489.28	12.00	12.00	0.00	
5608.29	90.00	180.00	5316.70	-497.62	0.00	497.57	12.00	12.00	0.00	End of Curve @ 5608' MD/5
5700.00	90.00	180.00	5316.70	-589.33	0.00	589.27	0.00	0.00	0.00	
5800.00	90.00	180.00	5316.70	-689.33	0.00	689.26	0.00	0.00	0.00	
5900.00	90.00	180.00	5316.70	-789.33	0.00	789.25	0.00	0.00	0.00	
6000.00	90.00	180.00	5316.70	-889.33	0.00	889.24	0.00	0.00	0.00	
6100.00	90.00	180.00	5316.70	-989.33	0.00	989.23	0.00	0.00	0.00	
6200.00	90.00	180.00	5316.70	-1089.33	0.00	1089.22	0.00	0.00	0.00	
6300.00	90.00	180.00	5316.70	-1189.33	0.00	1189.21	0.00	0.00	0.00	
6400.00	90.00	180.00	5316.70	-1289.33	0.00	1289.20	0.00	0.00	0.00	
6500.00	90.00	180.00	5316.70	-1389.33	0.00	1389.19	0.00	0.00	0.00	
6600.00	90.00	180.00	5316.70	-1489.33	0.00	1489.18	0.00	0.00	0.00	
6700.00	90.00	180.00	5316.70	-1589.33	0.00	1589.17	0.00	0.00	0.00	
6800.00	90.00	180.00	5316.70	-1689.33	0.00	1689.16	0.00	0.00	0.00	
6900.00	90.00	180.00	5316.70	-1789.33	0.00	1789.15	0.00	0.00	0.00	
7000.00	90.00	180.00	5316.70	-1889.33	0.00	1889.13	0.00	0.00	0.00	
7100.00	90.00	180.00	5316.70	-1989.33	0.00	1989.12	0.00	0.00	0.00	
7200.00	90.00	180.00	5316.70	-2089.33	0.00	2089.11	0.00	0.00	0.00	
7300.00	90.00	180.00	5316.70	-2189.33	0.00	2189.10	0.00	0.00	0.00	
7400.00	90.00	180.00	5316.70	-2289.33	0.00	2289.09	0.00	0.00	0.00	
7500.00	90.00	180.00	5316.70	-2389.33	0.00	2389.08	0.00	0.00	0.00	
7607.77	90.00	180.00	5316.70	-2497.10	0.00	2496.85	0.00	0.00	0.00	KC 11-2 PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
KC 11-2 PBHL			5316.70	-2497.10	0.00	-2497.10	0.00	30 58 59.804 N	105 55 43.726 W

Annotation

MD ft	TVD ft	
4838.00	4838.00	KOP @ 4838' w/12° Build Rates
5563.29	5315.00	Top CC4 / Begin Hold @ 87° Inclination
5583.29	5316.05	End Hold/Begin Build to Land Curve
5608.29	5316.70	End of Curve @ 5608' MD/5317' TVD

Southwestern Energy Production Co.

Karlsbad Corral 11 #2H

65 ft FNL & 660 ft FWL

Section 11, T25-S, R29-E

Eddy County, New Mexico

Plan #1 100605

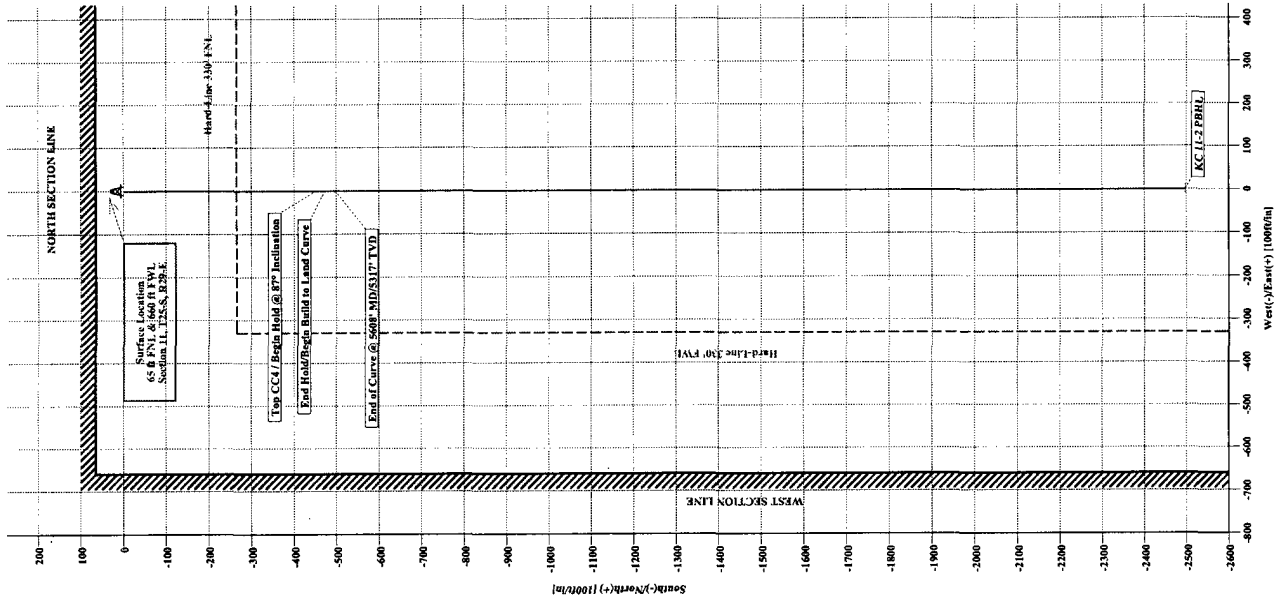
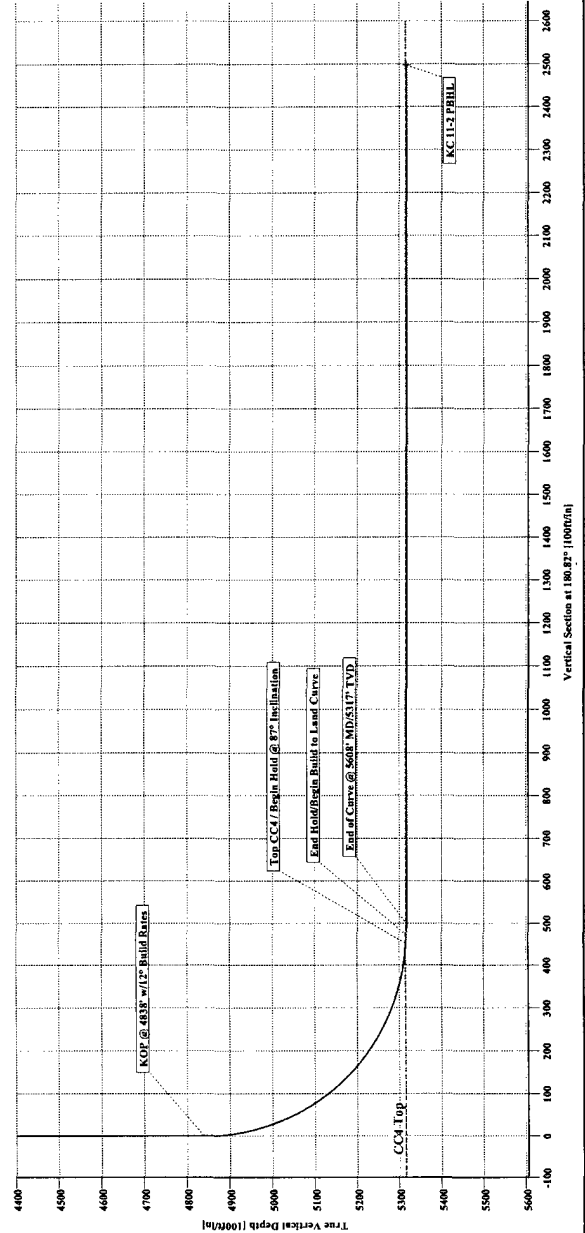
COMPANY DETAILS
Southwestern Energy Production Co.
3250 N. Sam Houston Pkwy E.
Houston, TX 77032
Calculation Method: Minimum Curvature
Error System: Systematic Ellipse
Scan Method: Closest Approach 3D
Error Surface: Elliptical Conic
Warning Method: Error Ratio

ANNOTATIONS

No.	TVD	MD	Annotation
1	4838.00	4838.00	KOP @ 4838' w/12" Build Rates
2	5315.00	5563.29	Top CC4 / Begin Hold @ 87° Inclination
3	5316.05	5583.29	End Hold/Begin Build to Land Curve
4	5316.70	5608.29	End of Curve @ 5608' MD/5317' TVD

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	D/Leg	T/Face	V/Sec	Target
1	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4838.00	0.00	180.00	4838.00	0.00	0.00	0.00	180.00	0.00	
3	5563.29	87.00	180.00	5315.00	-452.66	0.00	12.00	180.00	452.61	
4	5583.29	87.00	180.00	5316.05	-472.63	0.00	0.00	0.00	472.58	
5	5608.29	90.00	180.00	5316.70	-497.02	0.00	12.00	0.00	497.57	
6	7607.77	90.00	180.00	5316.70	-2497.10	0.00	0.00	0.00	2496.85	KC 11-2 PBHL



DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name
Property Code	Property Name KARLSBAD CORRAL 11		Well Number 2H
OGRID No.	Operator Name SOUTHWESTERN ENERGY PRODUCTION COMPANY		Elevation 3036'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	25-S	29-E		65	NORTH	660	WEST	EDDY

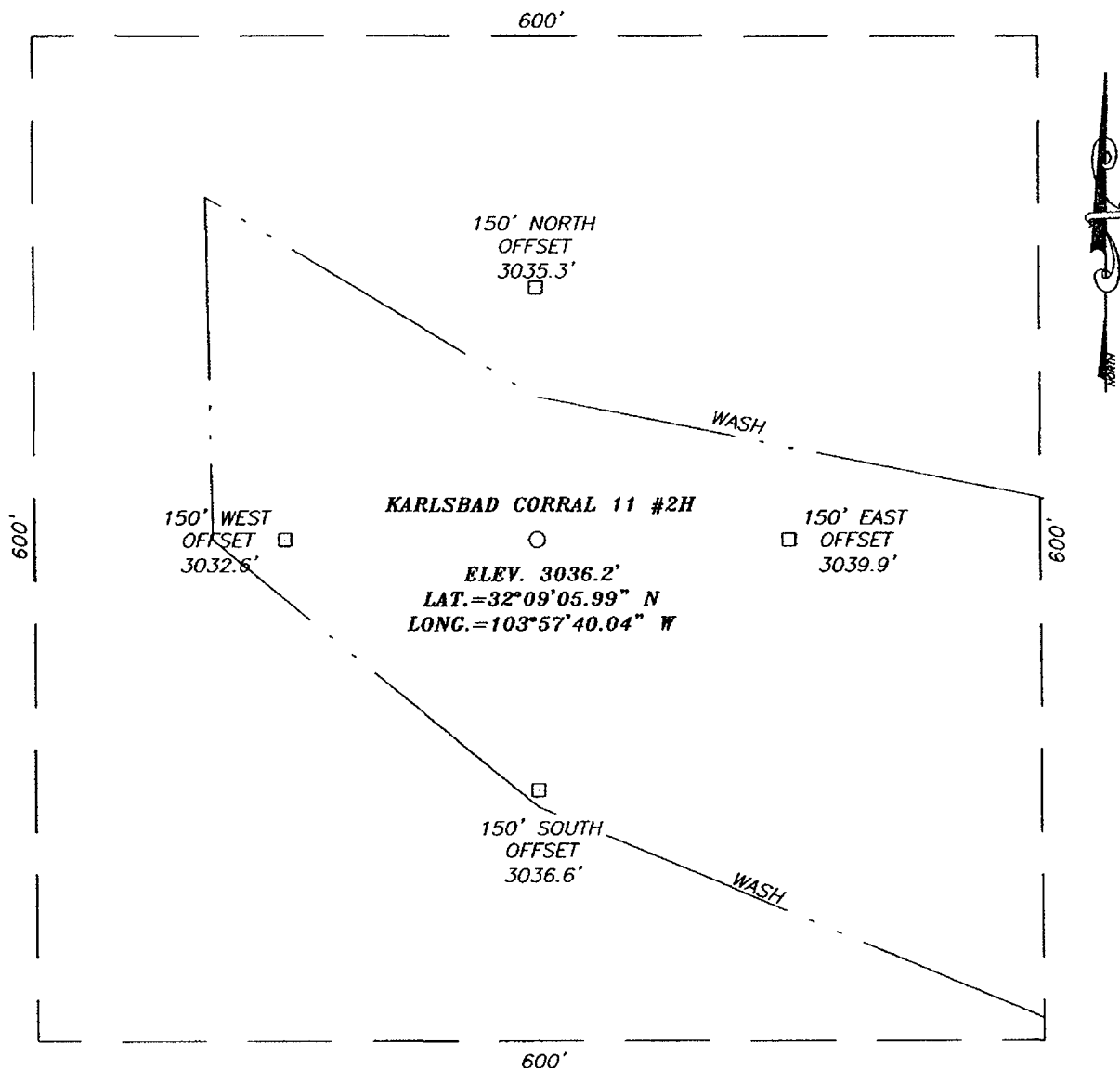
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	25-S	29-E		2563	NORTH	660	WEST	EDDY
Dedicated Acres 80		Joint or Infill		Consolidation Code		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

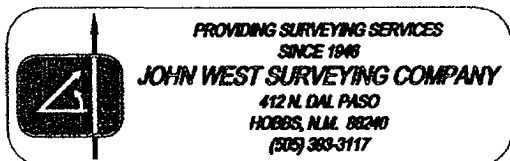
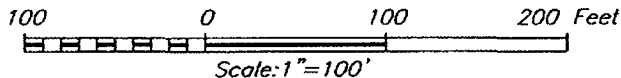
2 11 660' S.L. 65' GRD. AZ = 179°49'59" DIST. = 2498' 2563' B.H. 660' GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=419095.6 N X=615193.3 E LAT.=32°09'05.99" N LONG.=103°57'40.04" W BOTTOM HOLE LOCATION Y=416597.9 N X=615200.5 E	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>[Signature]</i> Signature J. Alan Grimsley Printed Name Drilling Engineer Title 2/5/06 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. OCTOBER 13, 2005 Date Surveyed LA REV: 12/5/05 Signature & Seal of Professional Surveyor <i>[Signature]</i> 12/05/05 05.11.1581 Certificate No. RONALD J. EIDSON 3239

SECTION 11, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #128 AND BUCK JACKSON RD. GO SOUTHWEST ON BUCK JACKSON RD. APPROX. 16.5 MILES TO THE INTERSECTION OF BUCK JACKSON ROAD AND TWIN WELLS RD. TURN RIGHT ON TWIN WELLS RD. AND GO APPROX. 500 FEET. TURN LEFT AND GO SOUTHWEST APPROX. 3.0 MILES. TURN RIGHT AND GO NORTHWEST APPROX. 1.4 MILES. TURN RIGHT AND GO NORTH APPROX. 4.1 MILES KARLSBAD CORRAL 2 #1H WELL. TURN LEFT AND GO WEST APPROX. 0.6 MILES. THIS LOCATION IS APPROX. 916 FEET NORTH OF ROAD.

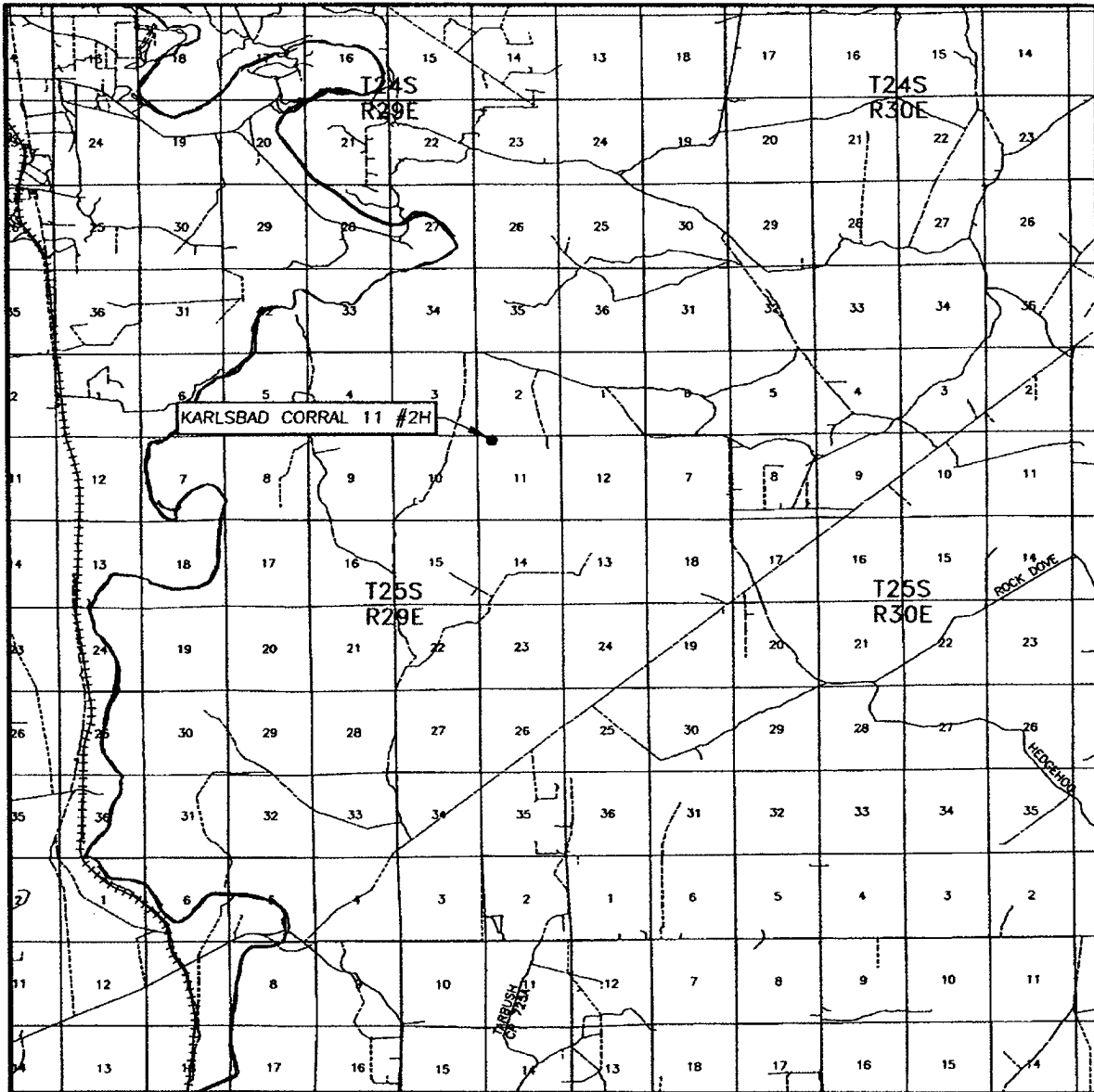


SOUTHWESTERN ENERGY PRODUCTION COMPANY

KARLSBAD CORRAL 11 #2H WELL
 LOCATED 65 FEET FROM THE NORTH LINE
 AND 660 FEET FROM THE WEST LINE OF SECTION 11,
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 10/13/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.1581	Dr By: LA
Date: 10/19/05	Disk: CD#4
05111581	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 11 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

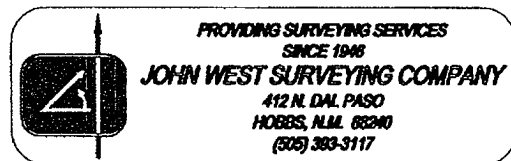
COUNTY EDDY

DESCRIPTION 65' FNL & 660' FWL

ELEVATION 3036'

OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY

LEASE KARLSBAD CORRAL 11

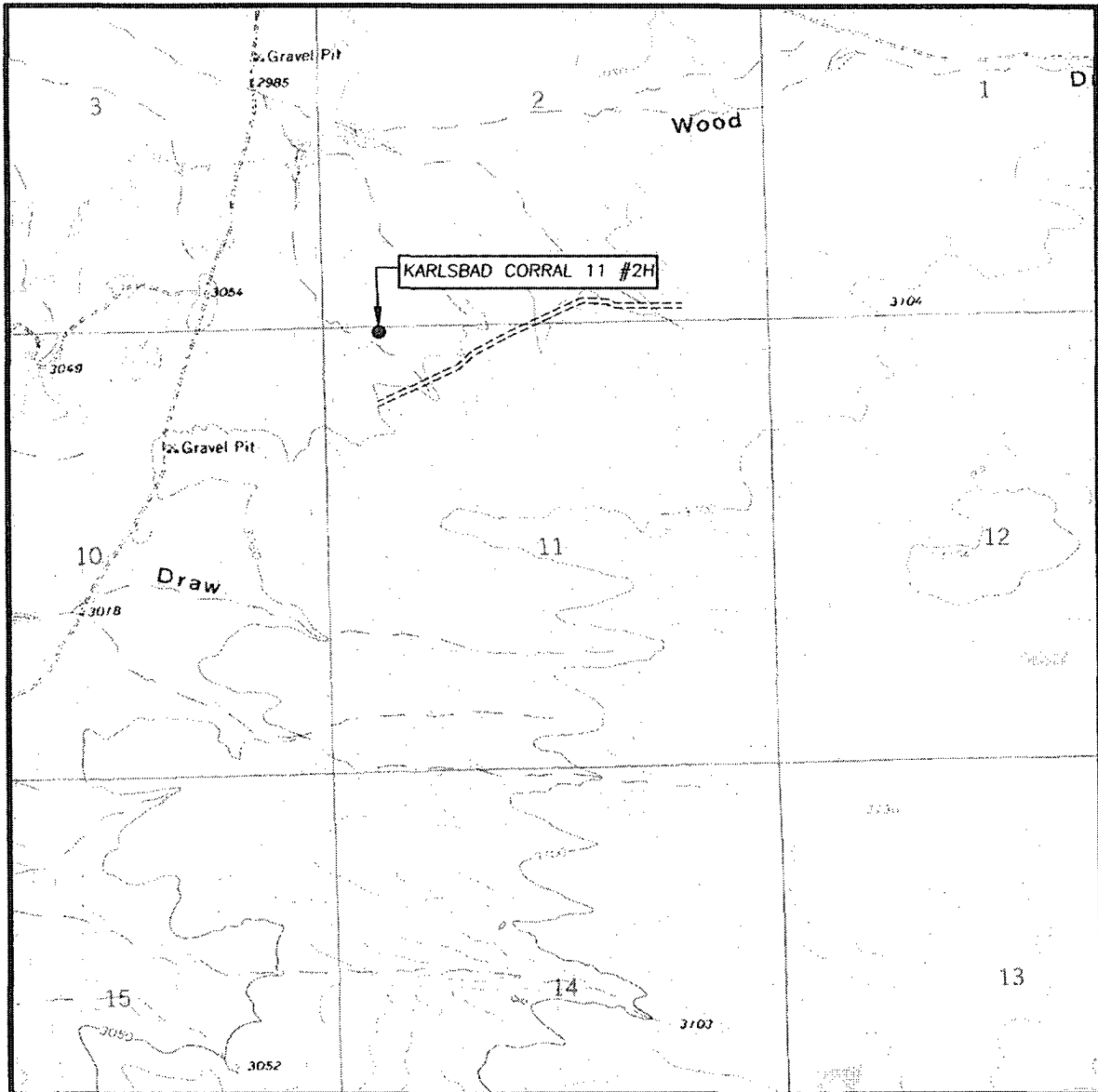


PROVIDING SURVEYING SERVICES
SINCE 1948

JOHN WEST SURVEYING COMPANY

412 N. DAL. PASO
HOBBS, N.M. 88240
(505) 383-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PIERCE CANYON, N.M. - 10'

SEC. 11 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

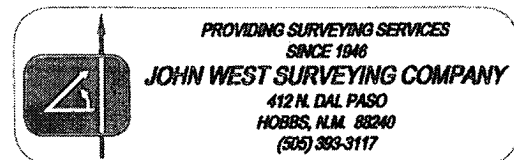
DESCRIPTION 65' FNL & 660' FWL

ELEVATION 3036'

OPERATOR SOUTHWESTERN ENERGY
PRODUCTION COMPANY

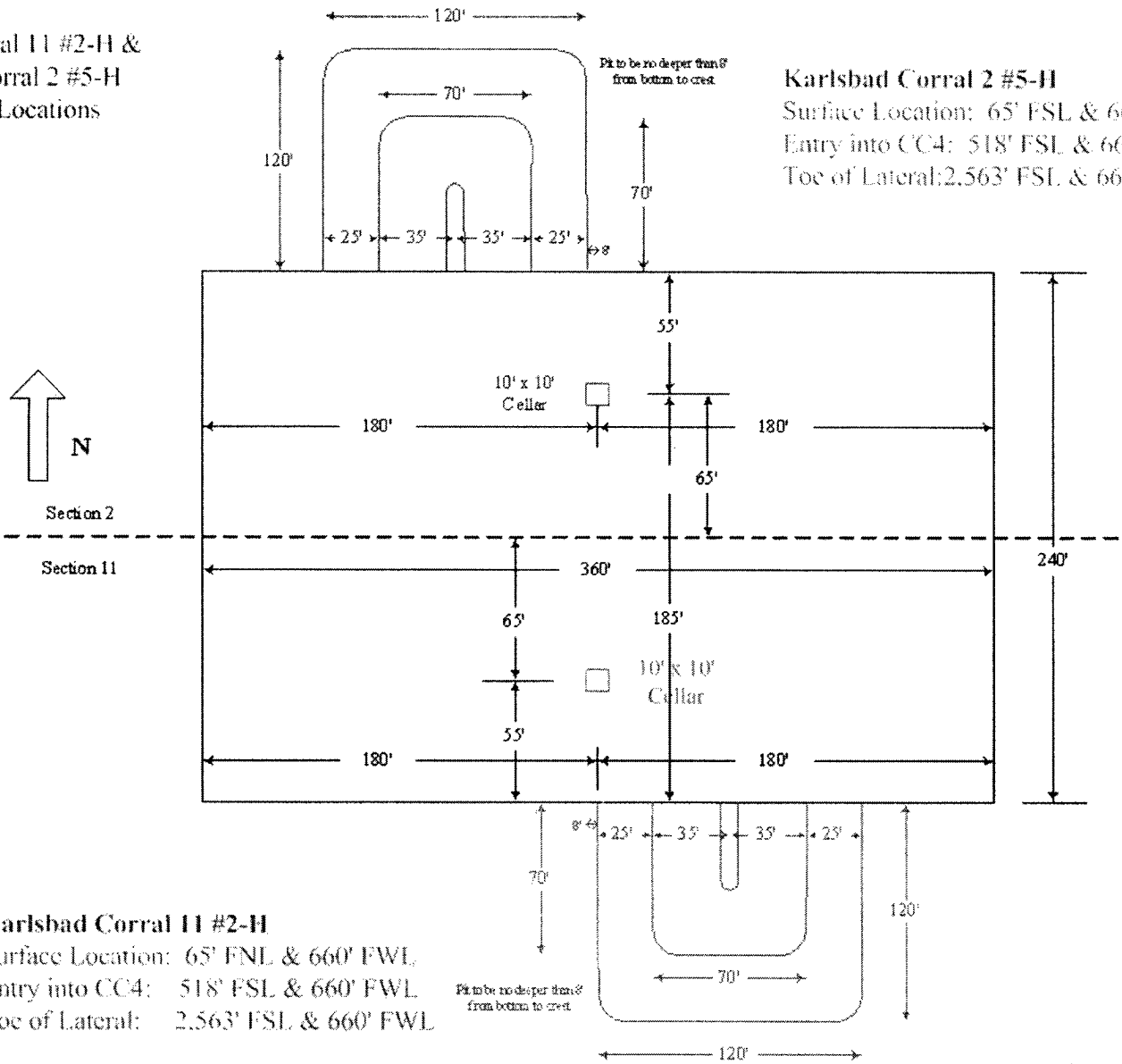
LEASE KARLSBAD CORRAL 11

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.



Karlsbad Corral 11 #2-H &
Karlsbad Corral 2 #5-H
Proposed Locations

Karlsbad Corral 2 #5-H
Surface Location: 65' FSL & 660' FWL
Entry into CC4: 518' FSL & 660' FWL
Toe of Lateral: 2,563' FSL & 660' FWL



Karlsbad Corral 11 #2-H
Surface Location: 65' FSL & 660' FWL
Entry into CC4: 518' FSL & 660' FWL
Toe of Lateral: 2,563' FSL & 660' FWL