



B.C Operating, Inc.
Lea County
Gay Nineties
Gay Nineties 2H

Plan: 140905 Gay Nineties 2H

MOJO Standard Survey

05 September, 2014

HOBBS OCD

MAR 21 2016

RECEIVED



DIRECTIONAL CORPORATION

MAR 22 2016

Company: B/C Operating, Inc. Project: Lea County Site: Gay Nineties 2H Well: Gay Nineties 2H Wellbore: Gay Nineties 2H Design: 140905 Gay Nineties 2H		Local Coordinate Reference: TVD Reference: MD Reference: North Reference: Survey/Calculation Method: Database:		Well: Gay Nineties 2H WELL @ 3595.0usft (Original Well Elev) WELL @ 3595.0usft (Original Well Elev) Grid: Minimum Curvature EDM 5000.1 Single User Db	
Project: Lea County					
Map System: US State Plane 1983 Geo Datum: North American Datum 1983 Map Zone: New Mexico Eastern Zone			System Datum: Mean Sea Level		
Site: Gay Nineties					
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 589,525.30 usft Easting: 732,567.44 usft Slot Radius: 13-3/16 "		Latitude: 32° 37' 8.831 N Longitude: 103° 42' 44.043 W Grid Convergence: 0.33 °	
Well: Gay Nineties 2H					
Well Position +N/S 0.0 usft +E/W 0.0 usft 0.0 usft		Northing: 589,525.30 usft Easting: 732,567.44 usft Wellhead Elevation: usft		Latitude: 32° 37' 8.831 N Longitude: 103° 42' 44.043 W Ground Level: 3,573.0 usft	
Wellbore: Gay Nineties 2H					
Magnetics: Model Name: IGRF-2010 Sample Date: 05/09/2014		Declination (°): 7.28 Dip Angle (°): 60.45 Field Strength (nT): 48,515			
Design: 140905 Gay Nineties 2H					
Audit Notes:					
Version:		Phase: PLAN		Tie On Depth: 0.0	
Vertical Section:		Depth From (TVD) (usft)		Direction (°)	
0.0		0.0		180.86	
Survey Tool Program					
From (usft)		To (usft)		Date 05/09/2014	
0.0		18,132.6		140905 Gay Nineties 2H (Gay Nineties 2H)	



BC OPERATING, INC.

MOJO Standard Survey

Company		B.C. Operating, Inc.				Lea County				Gay Nineties 2H				Gay Nineties 2H				Wellbore				Design:				Well Gay Nineties 2H				WELL @ 3595.0usft (Original Well Elev)				WELL @ 3595.0usft (Original Well Elev)				Grid				Minimum Curvature				EDM 5000.1 Single User Db			
Project		Site		Well		Wellbore		Design:		Local Coordinates Reference		TVD Reference		MD Reference		North Reference		Survey Calculation Method		Database		Local Coordinates Reference		TVD Reference		MD Reference		North Reference		Survey Calculation Method		Database		Local Coordinates Reference		TVD Reference		MD Reference		North Reference		Survey Calculation Method		Database					
Planned Survey		IMD (usft)		Azi (azimuth)		Inc (°)		TVD (usft)		TVDSS (usft)		N/S (usft)		E/W (usft)		V/Sec (usft)		D/leg (ft/100usft)		Northing (usft)		Easting (usft)		IMD (usft)		Azi (azimuth)		Inc (°)		TVD (usft)		TVDSS (usft)		N/S (usft)		E/W (usft)		V/Sec (usft)		D/leg (ft/100usft)		Northing (usft)		Easting (usft)					
		0.0	100.0	0.00	0.00	0.00	0.00	0.00	0.00	-3,595.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44					
		200.0	200.0	0.00	0.00	0.00	0.00	0.00	0.00	-3,495.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	200.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44				
		300.0	300.0	0.00	0.00	0.00	0.00	0.00	0.00	-3,395.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		400.0	400.0	0.00	0.00	0.00	0.00	0.00	0.00	-3,295.0	300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	400.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		500.0	500.0	0.00	0.00	0.00	0.00	0.00	0.00	-3,195.0	400.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	500.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		600.0	600.0	0.00	0.00	0.00	0.00	0.00	0.00	-3,095.0	500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	600.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		700.0	700.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,995.0	600.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	700.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		800.0	800.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,895.0	700.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	800.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		900.0	900.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,795.0	800.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	900.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,000.0	1,000.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,695.0	900.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,000.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,100.0	1,100.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,595.0	1,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,200.0	1,200.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,495.0	1,100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,200.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,300.0	1,300.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,395.0	1,200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,400.0	1,400.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,295.0	1,300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,400.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,500.0	1,500.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,195.0	1,400.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,500.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,600.0	1,600.0	0.00	0.00	0.00	0.00	0.00	0.00	-2,095.0	1,500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,600.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,700.0	1,700.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,995.0	1,600.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,700.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,800.0	1,800.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,895.0	1,700.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,800.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		1,900.0	1,900.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,795.0	1,800.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	1,900.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,000.0	2,000.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,695.0	1,900.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,000.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,100.0	2,100.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,595.0	2,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,200.0	2,200.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,495.0	2,100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,200.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,300.0	2,300.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,395.0	2,200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,400.0	2,400.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,295.0	2,300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,400.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,500.0	2,500.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,195.0	2,400.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,500.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
		2,600.0	2,600.0	0.00	0.00	0.00	0.00	0.00	0.00	-1,095.0	2,500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44	0.00	2,600.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	589,525.30	732,567.44			
										-995.0	2,600.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	589,525.30	73																											

05/09/2014 12:53:12PM

Company: B.C. Operating, Inc. Lea County Gay Nineties Gay Nineties 2H Well: Wellbore: Design:		Local/Co-ordinate Reference: TVD Reference: IMD Reference: North Reference: Survey/Calculation Method: Database:		Well Gay Nineties 2H WELL @ 3595.0usft (Original Well Elev) WELL @ 3595.0usft (Original Well Elev) Grid: Minimum Curvature EDM:5000.1 Single User Db						
IMD (usft)	Inc (°)	Azi(eazimuth) (°)	TVD (usft)	TVDS (usft)	N/S (usft)	E/W (usft)	IV Sec (usft)	Drag (°/100usft)	North (usft)	East (usft)
5,400.0	0.00	0.00	5,400.0	1,805.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
5,500.0	0.00	0.00	5,500.0	1,905.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
5,600.0	0.00	0.00	5,600.0	2,005.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
5,700.0	0.00	0.00	5,700.0	2,105.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
5,800.0	0.00	0.00	5,800.0	2,205.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
5,900.0	0.00	0.00	5,900.0	2,305.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,000.0	0.00	0.00	6,000.0	2,405.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,100.0	0.00	0.00	6,100.0	2,505.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,200.0	0.00	0.00	6,200.0	2,605.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,300.0	0.00	0.00	6,300.0	2,705.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,400.0	0.00	0.00	6,400.0	2,805.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,500.0	0.00	0.00	6,500.0	2,905.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,600.0	0.00	0.00	6,600.0	3,005.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,700.0	0.00	0.00	6,700.0	3,105.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,800.0	0.00	0.00	6,800.0	3,205.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
6,900.0	0.00	0.00	6,900.0	3,305.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,000.0	0.00	0.00	7,000.0	3,405.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,100.0	0.00	0.00	7,100.0	3,505.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,200.0	0.00	0.00	7,200.0	3,605.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,300.0	0.00	0.00	7,300.0	3,705.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,400.0	0.00	0.00	7,400.0	3,805.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,500.0	0.00	0.00	7,500.0	3,905.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,600.0	0.00	0.00	7,600.0	4,005.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,700.0	0.00	0.00	7,700.0	4,105.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,800.0	0.00	0.00	7,800.0	4,205.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
7,900.0	0.00	0.00	7,900.0	4,305.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44
8,000.0	0.00	0.00	8,000.0	4,405.0	0.0	0.0	0.0	0.00	589,525.30	732,567.44

Company: Project: Site: Well: Wellbore: Design:		B.C. Operating, Inc. Lea County Gay Nineties 2H Gay Nineties 2H 140905 Gay Nineties 2H				Local Co-ordinates Reference TVD Reference MD Reference North Reference Survey Calculation Method: Database				Well Gay Nineties 2H WELL @ 3595.0usft (Original Well Elev) WELL @ 3595.0usft (Original Well Elev) Grid Minimum Curvature EDM 5000.1 Single User Db			
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V-Vec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)			
8,100.0	0.00	0.00	8,100.0	4,505.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,200.0	0.00	0.00	8,200.0	4,605.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,300.0	0.00	0.00	8,300.0	4,705.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,400.0	0.00	0.00	8,400.0	4,805.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,500.0	0.00	0.00	8,500.0	4,905.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,600.0	0.00	0.00	8,600.0	5,005.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,700.0	0.00	0.00	8,700.0	5,105.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,800.0	0.00	0.00	8,800.0	5,205.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
8,900.0	0.00	0.00	8,900.0	5,305.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
9,000.0	0.00	0.00	9,000.0	5,405.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
9,100.0	0.00	0.00	9,100.0	5,505.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
9,184.0	0.00	0.00	9,184.0	5,589.0	0.0	0.0	0.0	0.0	589,525.30	732,567.44			
9,200.0	1.28	181.00	9,200.0	5,605.0	-0.2	0.0	0.0	0.2	589,525.12	732,567.44			
9,250.0	5.28	181.00	9,249.9	5,654.9	-3.0	-0.1	0.0	3.0	589,522.26	732,567.39			
9,300.0	9.28	181.00	9,299.5	5,704.5	-9.4	-0.2	0.0	9.4	589,515.93	732,567.28			
9,350.0	13.28	181.00	9,348.5	5,753.5	-19.1	-0.3	0.0	19.2	589,506.15	732,567.11			
9,400.0	17.28	181.00	9,396.7	5,801.7	-32.3	-0.6	0.0	32.3	589,492.98	732,566.88			
9,450.0	21.28	181.00	9,443.9	5,848.9	-48.8	-0.9	0.0	48.8	589,476.48	732,566.59			
9,500.0	25.28	181.00	9,489.8	5,894.8	-68.6	-1.2	0.0	68.6	589,456.72	732,566.24			
9,550.0	29.28	181.00	9,534.3	5,939.3	-91.5	-1.6	0.0	91.5	589,433.81	732,565.84			
9,600.0	33.28	181.00	9,577.0	5,982.0	-117.4	-2.0	0.0	117.5	589,407.86	732,565.39			
9,650.0	37.28	181.00	9,617.8	6,022.8	-146.3	-2.6	0.0	146.3	589,378.99	732,564.89			
9,700.0	41.28	181.00	9,656.5	6,061.5	-178.0	-3.1	0.0	178.0	589,347.35	732,564.33			
9,750.0	45.28	181.00	9,692.9	6,097.9	-212.2	-3.7	0.0	212.2	589,313.08	732,563.74			
9,800.0	49.28	181.00	9,726.8	6,131.8	-248.9	-4.3	0.0	249.0	589,276.36	732,563.09			
9,850.0	53.28	181.00	9,758.1	6,163.1	-287.9	-5.0	0.0	288.0	589,237.36	732,562.41			
9,900.0	57.28	181.00	9,786.6	6,191.6	-329.0	-5.7	0.0	329.1	589,196.28	732,561.70			

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Company: Project: Site: Well: Wellbore: Design:		B.C. Operating, Inc. Lea County Gay Nineties Gay Nineties 2H Gay Nineties 2H 140905 Gay Nineties 2H		Local Co-ordinate Reference TVD Reference: MD Reference: North Reference: Survey/Calculation Method: Database:				Well/Gay Nineties 2H WELL @ 3595.0usft (Original Well Elev.) WELL @ 3595.0usft (Original Well Elev.) Grid: Minimum Curvature: EDM 5000 1 Single User Db			
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDS (usft)	N/S (usft)	E/W (usft)	V/Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
12,100.0	90.00	180.39	9,900.2	6,305.2	-2,507.1	-21.1	2,507.1	0.03	587,018.25	732,546.39	
12,200.0	90.00	180.42	9,900.2	6,305.2	-2,607.1	-21.8	2,607.1	0.03	586,918.25	732,545.69	
12,300.0	90.00	180.44	9,900.2	6,305.2	-2,707.0	-22.5	2,707.1	0.03	586,818.25	732,544.94	
12,400.0	90.00	180.47	9,900.2	6,305.2	-2,807.0	-23.3	2,807.1	0.03	586,718.25	732,544.14	
12,500.0	90.00	180.50	9,900.2	6,305.2	-2,907.0	-24.2	2,907.1	0.03	586,618.26	732,543.29	
12,600.0	90.00	180.53	9,900.2	6,305.2	-3,007.0	-25.1	3,007.1	0.03	586,518.26	732,542.38	
12,700.0	90.00	180.56	9,900.2	6,305.2	-3,107.0	-26.0	3,107.1	0.03	586,418.27	732,541.43	
12,800.0	90.00	180.59	9,900.2	6,305.2	-3,207.0	-27.0	3,207.1	0.03	586,318.27	732,540.42	
12,900.0	90.00	180.62	9,900.2	6,305.2	-3,307.0	-28.1	3,307.1	0.03	586,218.28	732,539.37	
13,000.0	90.00	180.65	9,900.2	6,305.2	-3,407.0	-29.2	3,407.1	0.03	586,118.28	732,538.26	
13,100.0	90.00	180.68	9,900.2	6,305.2	-3,507.0	-30.3	3,507.1	0.03	586,018.29	732,537.10	
13,200.0	90.00	180.71	9,900.2	6,305.2	-3,607.0	-31.5	3,607.1	0.03	585,918.30	732,535.89	
13,300.0	90.00	180.74	9,900.2	6,305.2	-3,707.0	-32.8	3,707.1	0.03	585,818.31	732,534.63	
13,400.0	90.00	180.77	9,900.2	6,305.2	-3,807.0	-34.1	3,807.1	0.03	585,718.31	732,533.32	
13,500.0	90.00	180.80	9,900.2	6,305.2	-3,907.0	-35.5	3,907.1	0.03	585,618.32	732,531.96	
13,600.0	90.00	180.82	9,900.2	6,305.2	-4,007.0	-36.9	4,007.1	0.03	585,518.33	732,530.55	
13,700.0	90.00	180.85	9,900.2	6,305.2	-4,107.0	-38.4	4,107.1	0.03	585,418.34	732,529.08	
13,800.0	90.00	180.88	9,900.2	6,305.2	-4,206.9	-39.9	4,207.1	0.03	585,318.36	732,527.57	
13,900.0	90.00	180.91	9,900.2	6,305.2	-4,306.9	-41.4	4,307.1	0.03	585,218.37	732,526.00	
14,000.0	90.00	180.94	9,900.2	6,305.2	-4,406.9	-43.1	4,407.1	0.03	585,118.38	732,524.38	
14,100.0	90.00	180.97	9,900.1	6,305.1	-4,506.9	-44.7	4,507.1	0.03	585,018.39	732,522.71	
14,200.0	90.00	181.00	9,900.1	6,305.1	-4,606.9	-46.4	4,607.1	0.03	584,918.41	732,520.99	
14,300.0	90.00	181.03	9,900.1	6,305.1	-4,706.9	-48.2	4,707.1	0.03	584,818.42	732,519.22	
14,400.0	90.00	181.06	9,900.1	6,305.1	-4,806.9	-50.0	4,807.1	0.03	584,718.44	732,517.40	
14,500.0	90.00	181.09	9,900.1	6,305.1	-4,906.8	-51.9	4,907.1	0.03	584,618.46	732,515.53	
14,600.0	90.00	181.12	9,900.1	6,305.1	-5,006.8	-53.8	5,007.1	0.03	584,518.48	732,513.61	
14,700.0	90.00	181.15	9,900.1	6,305.1	-5,106.8	-55.8	5,107.1	0.03	584,418.50	732,511.63	

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Company: B/C Operating, Inc.		Well Gay Nineties 2H							
Project: Lea County		WELL @ 3595 0ustf (Original Well Elev)							
Site: Gay Nineties		WELL @ 3595 0ustf (Original Well Elev)							
Well: Gay Nineties 2H		Grid							
Wellbore: Gay Nineties 2H		Minimum Curvature							
Design: 140905 Gay Nineties 2H		EDM 5000' 1- Single User Db							
Planned Survey		Local/Coordinate Reference:							
		TVD Reference:							
		MD Reference:							
		North Reference:							
		Survey Calculation Method:							
		Database:							
MD (ustf)	Inc (°)	Azi (azimuth) (°)	TVD (ustf)	N/S (ustf)	E/W (ustf)	V/Sec (ustf)	D/Leg (°/100ustf)	Northing (ustf)	Easting (ustf)
17,400.0	90.00	181.20	9,900.0	6,305.0	-7,806.2	-112.1	7,807.0	0.00	581,719.09
17,500.0	90.00	181.20	9,900.0	6,305.0	-7,906.2	-114.2	7,907.0	0.00	581,619.11
17,600.0	90.00	181.20	9,900.0	6,305.0	-8,006.2	-116.3	8,007.0	0.00	581,519.13
17,700.0	90.00	181.20	9,900.0	6,305.0	-8,106.1	-118.4	8,107.0	0.00	581,419.15
17,800.0	90.00	181.20	9,900.0	6,305.0	-8,206.1	-120.5	8,207.0	0.00	581,319.17
17,900.0	90.00	181.20	9,900.0	6,305.0	-8,306.1	-122.6	8,307.0	0.00	581,219.19
18,000.0	90.00	181.20	9,900.0	6,305.0	-8,406.1	-124.7	8,407.0	0.00	581,119.22
18,099.0	90.00	181.20	9,900.0	6,305.0	-8,505.1	-126.8	8,506.0	0.00	581,020.20
18,132.6	90.00	181.20	9,900.0	6,305.0	-8,538.7	-127.5	8,539.6	0.01	580,986.62
									732,439.98

Checked By: _____

Approved By: _____

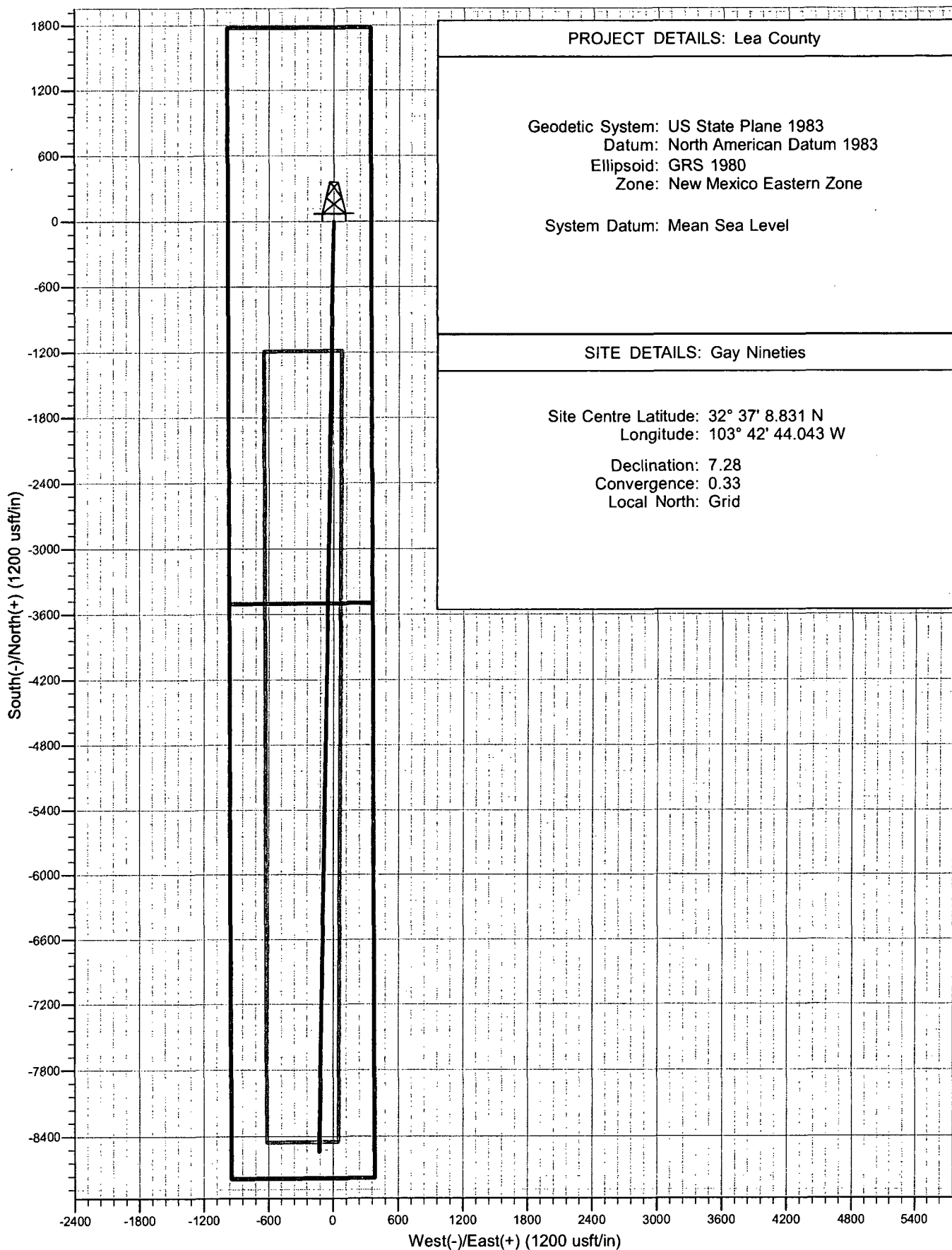
Date: _____

Project: Lea County
Site: Gay Nineties
Well: Gay Nineties 2H
Wellbore: Gay Nineties 2H
Design: 140905 Gay Nineties 2H



Azimuths to Grid North
True North: -0.34°
Magnetic North: 6.95°

Magnetic Field
Strength: 48514.7nT
Dip Angle: 60.45°
Date: 05/09/2014
Model: IGRF2010



PROJECT DETAILS: Lea County

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

SITE DETAILS: Gay Nineties

Site Centre Latitude: 32° 37' 8.831 N
Longitude: 103° 42' 44.043 W

Declination: 7.28
Convergence: 0.33
Local North: Grid

Project: Lea County
 Site: Gay Nineties
 Well: Gay Nineties 2H
 Wellbore: Gay Nineties 2H
 Design: 140905 Gay Nineties 2H

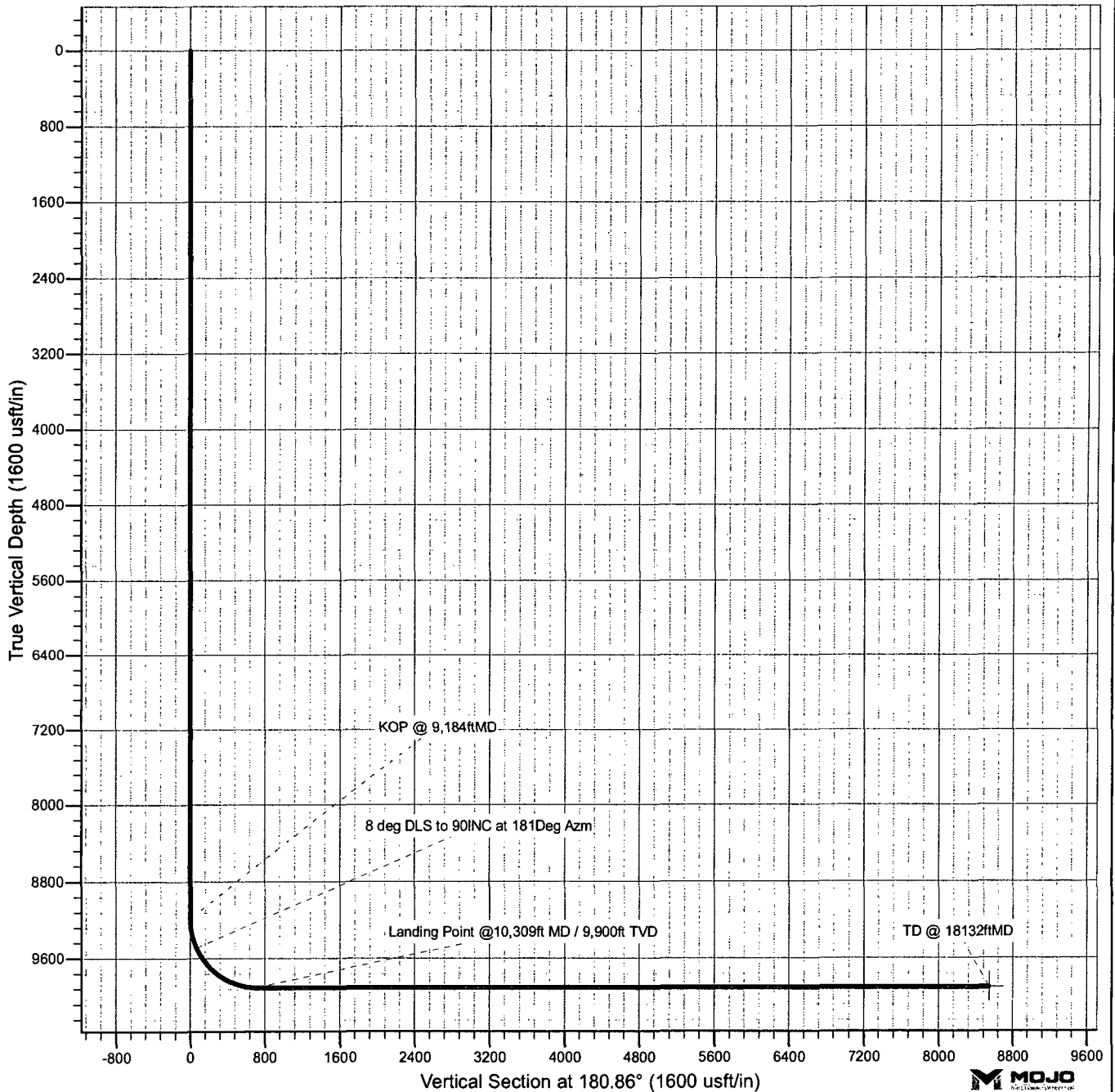


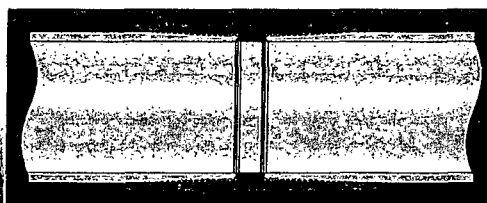
Azimuths to Grid North
 True North: -0.34°
 Magnetic North: 6.95°

Magnetic Field
 Strength: 48514.7nT
 Dip Angle: 60.45°
 Date: 05/09/2014
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSection	Departure	Annotation
9184.0	9184.0	0.00	0.00	0.0	0.0	0.0	0.0	KOP @ 9,184ftMD
9489.8	9500.0	25.28	181.00	-68.6	-1.2	68.6	68.6	8 deg DLS to 90INC at 181Deg Azm
9900.2	10309.0	90.00	181.00	-716.1	-12.5	716.2	716.2	Landing Point@10,309ftMD/9,900ftTVD
9900.0	18132.0	90.00	180.87	-8538.2	-127.5	8539.2	8539.2	TD @ 18132ftMD





TI/RSI Connections *

5 1/2-in 17.0 ppf P-110 Tejas Tubular Reduced Stress

Pipe Body	Data
	Imperial [Metric]
Nominal OD (in [mm])	5.500 [139.7]
Nominal weight (lbm/ft)	17.0
Minimum yield of material (psi [kPa])	110,000 [758,423]
Minimum ID (in [mm])	4.892 [124.3]
Drift (in [mm])	4.767 [121.1]
Wall thickness (in [mm])	0.304 [7.72]
Plain end weight (lbm/ft)	16.89
Cross sectional area (in ² [mm ²])	4.962 [3,201]
Performance	
API tensile yield (lbf [N])	546,000 [2,428,729]
API internal yield pressure (psi [kPa])	10,640 [73,360]
API external yield pressure (psi [kPa])	7,480 [51,573]
Connection Dimensions	
Coupling OD (in [mm])	6.050 [153.7]
Coupling ID (in [mm])	4.892 [124.3]
Coupling length (in [mm])	9.375 [238.1]
Make-up loss (in [mm])	4.125 [104.8]
Threads per inch	5
Connection Performance	
Tensile yield strength** (lbf [N])	546,000 [2,428,729]
Internal yield pressure** (psi [kPa])	10,640 [73,360]
External yield pressure** (psi [kPa])	7,480 [51,573]
Compression strength** (lbf [N])	546,000 [2,428,729]
Working bending rate, tested (°/100 ft)	20
Bending rate, calculated (°/100 ft)	92
**Values based on 100% efficiency	
Torque Values	
Minimum (lbf.ft [N.m])	6,800 [9,219]
Optimum, recommended make-up (lbf.ft [N.m])	7,200 [9,762]
Maximum (lbf.ft [N.m])	8,600 [11,660]
Yield (lbf.ft [N.m])	17,000 [23,049]
Max. operational torque (lbf.ft [N.m])	15,500 [21,015]

Inspection Criteria

All the material is inspected to 5% Test notch inspection for OD/ID, Long/Trans and wall check as per API/ASTM requirements through EMI/SEA.

Note: All the information provided is general data. This document is not a warranty/quality certificate. Tejas Tubular reserves the right to change any and all of this data at any time for corrections and product improvement. This is an uncontrolled document.

20" 2K Annular

