

Location:	COLORADO	Slot:	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Field:	WELD COUNTY (NAD83,TRUE NORTH)	Well:	ORR 23N-32A-M
Facility:	SEC.36-T06N-R67W	Wellbore:	ORR 23N-32A-M PWB
Plot reference wellpath is ORR 23N-32A-L PWP (REV-A.0)		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	
True vertical depths are referenced to PRECISION 462 (20KB) (RKB)		" = Wellpath was transformed from a different geodetic datum	
Measured depths are referenced to PRECISION 462 (20KB) (RKB)		North Reference: True north	
PRECISION 462 (20KB) (RKB) to Mean Sea Level: 4744 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: wagnjam on 2016-10-13	
		Database: WA_DEN_Denver_Defn	

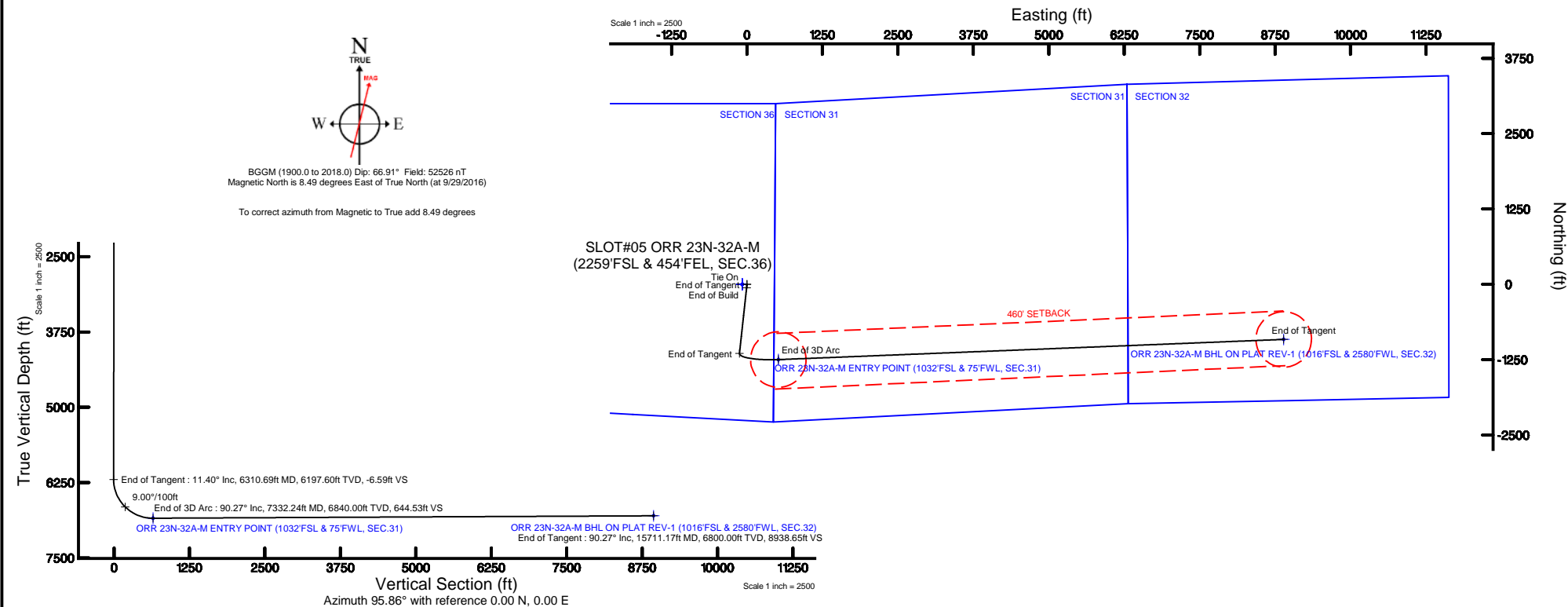
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC 36-T06N-R67W	3185242.222	1404728.928	40°26'32.903"N	104°5'04.052"W		
<div> <div>Slot</div> <div>Local N (ft)</div> <div>Local E (ft)</div> <div>Grid East (US ft)</div> <div>Grid North (US ft)</div> <div>Latitude</div> <div>Longitude</div> </div>						
SLOT#05 ORR 23N-32A-M (2259FSL & 454FEL, SEC.36)	-0.71	80.10	3185322.324	1404728.321	40°26'32.896"N	104°5'03.016"W
PRECISION 462 (20XB) (RKB) to Mud line (At Slot: SLOT#05 ORR 23N-32A-M (2259FSL & 454FEL, SEC.36))					4744ft	
Mean Sea Level to Mud line (At Slot: SLOT#05 ORR 23N-32A-M (2259FSL & 454FEL, SEC.36))					0ft	
PRECISION 462 (20XB) (RKB) to Mean Sea Level					4744ft	

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
20.00	0.000	186.192	20.00	0.00	0.00	3185322.32	1404728.32	40°26'32.896"N	104°50'03.016"W

MD (ft)	X (ft)	Y (ft)	TVD (ft)	Inclination (°)	Azimuth (°)	VS (ft)	Comment
7007.48	208.12	-1244.77	6762.00	61.662	93.939	334.21	SHARON SPRINGS

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	20.00	0.000	186.192	20.00	0.00	0.00	0.00	0.00
End of Tangent	200.00	0.000	186.192	200.00	0.00	0.00	0.00	0.00
End of Build	770.07	11.401	186.192	766.31	-56.20	-6.10	2.00	-0.32
End of Tangent	6310.69	11.401	186.192	6197.60	-1145.08	-124.23	0.00	-6.59
End of 3D Arc	7332.24	90.274	87.709	6840.00	-1248.18	519.73	9.00	644.53
End of Tangent	15711.17	90.274	87.709	6800.00	-913.23	8891.87	0.00	8938.65

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.31-TOWN-R66W		0.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
SEC.31-TOWN-REFW		0.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
SEC.32-TOWN-R66W		0.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
SEC.32-TOWN-REFW		0.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
SEC.35-TOWN-REFW		0.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
SEC.36-TOWN-REFW		0.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
ORR 22N-32A-M BHL ON PLAT REV-1 (1016'SBL & 2580'FWL, SEC.32)	15711.17	6800.00	-913.23	8891.87	3194200.45	1403881.91	40°26'23.856"N	104°48'08.017"W
ORR 22N-32A-M ENTRY POINT (1032'FSBL & 75'FWL, SEC.31)	7332.24	6840.00	-1248.18	519.73	3185851.39	1402484.13	40°26'20.562"N	104°49'56.294"W
SEC.31-TOWN-REFW 460' SETBACK		7112.00	0.71	-60.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W



To correct azimuth from Magnetic to True add 8.49 degrees

ORR_23N-32A-M_PWP__REV-A.1_.1as

~VERSION INFORMATION

VERS. 2.0 : CWLS LOG ASCII STANDARD-VERSION 2.0
 WRAP. NO : ASCII DATA SECTION CONTAINS ONE ROW PER WELLPATH STATION

~WELL INFORMATION

#MNEM	.UNITS	DATA	:DESCRIPTION
#----	.-----	----	:-----
STRT	.ft	0.00	:START MD
STOP	.ft	15691.17	:STOP MD
STEP	.ft	0.0	:STEP (non-uniform increment)
NULL	.	-999.99	:NULL
COMP	.	SYNERGY RESOURCES CORPORATION	:OPERATOR
WELL	.	ORR 23N-32A-M	:WELL
FLD	.	WELD COUNTY (NAD83,TRUE NORTH)	:FIELD
LOC	.	COLORADO	:AREA (aka: Location)
CNTY	.	N/A	:COUNTY
STAT	.	N/A	:STATE
CTRY	.	N/A	:COUNTRY
SRVC	.	Baker Hughes	:CONTRACTOR
DATE	.	10/25/2016	:LOG REV DATE
API	.		:API NUMBER

~OTHER INFORMATION

#Software: WellArchitect(R) Version 5.0

#MNEM	.UNITS	DATA	:DESCRIPTION
#----	.-----	----	:-----
WPTYPE	.	PLANNED WELLPATH	:WELLPATH TYPE
FACILITY	.	SEC.36-T06N-R67W	:FACILITY
SLOT	.	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)	:SLOT
WELLBORE	.	ORR 23N-32A-M PWB	:WELLBORE
WELLPATH	.	ORR 23N-32A-M PWP (REV-A.1)	:WELLPATH
MDREFPT	.	Slot	:MD REFERENCE POINT
TVDREFPT	.	Mean Sea Level	:TVD REFERENCE POINT
LCLREFPT	.	Field Center	:LOCAL COORDINATE REFERENCE PT
VSAZIMUTH	.deg	95.86	:VERTICAL SECTION AZIMUTH
VSORIGN	.ft	-21728.25	:VERTICAL SECTION ORIGIN NORTH
VSORIGE	.ft	13887.75	:VERTICAL SECTION ORIGIN EAST

~CURVE (WELLPATH) INFORMATION

#MNEM	.UNITS	:DESCRIPTION
#----	.-----	:-----
DEPT	.ft	:MEASURED DEPTH
INC	.deg	:INCLINATION
AZI	.deg	:AZIMUTH
TVD	.ft	:TRUE VERTICAL DEPTH
SECT	.ft	:CROSS SECTION (CURTAIN/VERTICAL)
LOCALN	.ft	:LOCAL NORTH
LOCALE	.ft	:LOCAL EAST

ORR_23N-32A-M_PWP__REV-A.1_.1as

LAT .deg :LATITUDE
 LONG .deg :LONGITUDE
 DLS .deg/100ft :DOGLEG SEVERITY

~ASCII DATA

0.00	0.00	186.19	-4724.00	0.00	-21728.25	13887.75	40.4424711	-104.8341711	0.00
20.00	0.00	186.19	-4704.00	0.00	-21728.25	13887.75	40.4424711	-104.8341711	0.00
120.00	0.00	186.19	-4604.00	0.00	-21728.25	13887.75	40.4424711	-104.8341711	0.00
180.00	0.00	186.19	-4544.00	0.00	-21728.25	13887.75	40.4424711	-104.8341711	0.00
220.00	0.80	186.19	-4504.00	0.00	-21728.52	13887.72	40.4424703	-104.8341712	2.00
320.00	2.80	186.19	-4404.06	-0.02	-21731.65	13887.39	40.4424618	-104.8341724	2.00
420.00	4.80	186.19	-4304.28	-0.06	-21738.23	13886.67	40.4424437	-104.8341750	2.00
520.00	6.80	186.19	-4204.80	-0.12	-21748.28	13885.59	40.4424161	-104.8341789	2.00
620.00	8.80	186.19	-4105.73	-0.19	-21761.77	13884.13	40.4423791	-104.8341842	2.00
720.00	10.80	186.19	-4007.19	-0.29	-21778.70	13882.31	40.4423326	-104.8341908	2.00
750.07	11.40	186.19	-3977.69	-0.32	-21784.45	13881.69	40.4423168	-104.8341930	2.00
820.00	11.40	186.19	-3909.13	-0.40	-21798.20	13880.20	40.4422791	-104.8341984	0.00
920.00	11.40	186.19	-3811.11	-0.52	-21817.85	13878.08	40.4422252	-104.8342060	0.00
1020.00	11.40	186.19	-3713.08	-0.63	-21837.50	13875.96	40.4421712	-104.8342137	0.00
1120.00	11.40	186.19	-3615.05	-0.74	-21857.16	13873.84	40.4421173	-104.8342214	0.00
1220.00	11.40	186.19	-3517.03	-0.86	-21876.81	13871.72	40.4420633	-104.8342290	0.00
1320.00	11.40	186.19	-3419.00	-0.97	-21896.46	13869.60	40.4420094	-104.8342367	0.00
1420.00	11.40	186.19	-3320.97	-1.08	-21916.12	13867.48	40.4419555	-104.8342443	0.00
1520.00	11.40	186.19	-3222.95	-1.20	-21935.77	13865.35	40.4419015	-104.8342520	0.00
1620.00	11.40	186.19	-3124.92	-1.31	-21955.43	13863.23	40.4418476	-104.8342597	0.00
1720.00	11.40	186.19	-3026.89	-1.42	-21975.08	13861.11	40.4417936	-104.8342673	0.00
1820.00	11.40	186.19	-2928.87	-1.53	-21994.73	13858.99	40.4417397	-104.8342750	0.00
1920.00	11.40	186.19	-2830.84	-1.65	-22014.39	13856.87	40.4416857	-104.8342826	0.00
2020.00	11.40	186.19	-2732.81	-1.76	-22034.04	13854.75	40.4416318	-104.8342903	0.00
2120.00	11.40	186.19	-2634.79	-1.87	-22053.69	13852.63	40.4415778	-104.8342980	0.00
2220.00	11.40	186.19	-2536.76	-1.99	-22073.35	13850.51	40.4415239	-104.8343056	0.00
2320.00	11.40	186.19	-2438.73	-2.10	-22093.00	13848.39	40.4414700	-104.8343133	0.00
2420.00	11.40	186.19	-2340.71	-2.21	-22112.66	13846.26	40.4414160	-104.8343209	0.00
2520.00	11.40	186.19	-2242.68	-2.33	-22132.31	13844.14	40.4413621	-104.8343286	0.00
2620.00	11.40	186.19	-2144.65	-2.44	-22151.96	13842.02	40.4413081	-104.8343363	0.00
2720.00	11.40	186.19	-2046.63	-2.55	-22171.62	13839.90	40.4412542	-104.8343439	0.00
2820.00	11.40	186.19	-1948.60	-2.67	-22191.27	13837.78	40.4412002	-104.8343516	0.00
2920.00	11.40	186.19	-1850.57	-2.78	-22210.92	13835.66	40.4411463	-104.8343592	0.00
3020.00	11.40	186.19	-1752.55	-2.89	-22230.58	13833.54	40.4410923	-104.8343669	0.00
3120.00	11.40	186.19	-1654.52	-3.01	-22250.23	13831.42	40.4410384	-104.8343746	0.00
3220.00	11.40	186.19	-1556.49	-3.12	-22269.89	13829.30	40.4409845	-104.8343822	0.00
3320.00	11.40	186.19	-1458.47	-3.23	-22289.54	13827.17	40.4409305	-104.8343899	0.00
3420.00	11.40	186.19	-1360.44	-3.35	-22309.19	13825.05	40.4408766	-104.8343975	0.00
3520.00	11.40	186.19	-1262.41	-3.46	-22328.85	13822.93	40.4408226	-104.8344052	0.00
3620.00	11.40	186.19	-1164.39	-3.57	-22348.50	13820.81	40.4407687	-104.8344129	0.00
3720.00	11.40	186.19	-1066.36	-3.69	-22368.15	13818.69	40.4407147	-104.8344205	0.00
3820.00	11.40	186.19	-968.33	-3.80	-22387.81	13816.57	40.4406608	-104.8344282	0.00
3920.00	11.40	186.19	-870.31	-3.91	-22407.46	13814.45	40.4406068	-104.8344358	0.00

				ORR_23N-32A-M_PWP__REV-A.1_.las					
4020.00	11.40	186.19	-772.28	-4.02	-22427.12	13812.33	40.4405529	-104.8344435	0.00
4120.00	11.40	186.19	-674.25	-4.14	-22446.77	13810.21	40.4404990	-104.8344512	0.00
4220.00	11.40	186.19	-576.23	-4.25	-22466.42	13808.08	40.4404450	-104.8344588	0.00
4320.00	11.40	186.19	-478.20	-4.36	-22486.08	13805.96	40.4403911	-104.8344665	0.00
4420.00	11.40	186.19	-380.17	-4.48	-22505.73	13803.84	40.4403371	-104.8344741	0.00
4520.00	11.40	186.19	-282.15	-4.59	-22525.38	13801.72	40.4402832	-104.8344818	0.00
4620.00	11.40	186.19	-184.12	-4.70	-22545.04	13799.60	40.4402292	-104.8344895	0.00
4720.00	11.40	186.19	-86.09	-4.82	-22564.69	13797.48	40.4401753	-104.8344971	0.00
4820.00	11.40	186.19	11.93	-4.93	-22584.35	13795.36	40.4401214	-104.8345048	0.00
4920.00	11.40	186.19	109.96	-5.04	-22604.00	13793.24	40.4400674	-104.8345124	0.00
5020.00	11.40	186.19	207.99	-5.16	-22623.65	13791.12	40.4400135	-104.8345201	0.00
5120.00	11.40	186.19	306.01	-5.27	-22643.31	13788.99	40.4399595	-104.8345277	0.00
5220.00	11.40	186.19	404.04	-5.38	-22662.96	13786.87	40.4399056	-104.8345354	0.00
5320.00	11.40	186.19	502.07	-5.50	-22682.61	13784.75	40.4398516	-104.8345431	0.00
5420.00	11.40	186.19	600.09	-5.61	-22702.27	13782.63	40.4397977	-104.8345507	0.00
5520.00	11.40	186.19	698.12	-5.72	-22721.92	13780.51	40.4397437	-104.8345584	0.00
5620.00	11.40	186.19	796.15	-5.84	-22741.58	13778.39	40.4396898	-104.8345660	0.00
5720.00	11.40	186.19	894.17	-5.95	-22761.23	13776.27	40.4396359	-104.8345737	0.00
5820.00	11.40	186.19	992.20	-6.06	-22780.88	13774.15	40.4395819	-104.8345814	0.00
5920.00	11.40	186.19	1090.23	-6.18	-22800.54	13772.03	40.4395280	-104.8345890	0.00
6020.00	11.40	186.19	1188.25	-6.29	-22820.19	13769.90	40.4394740	-104.8345967	0.00
6120.00	11.40	186.19	1286.28	-6.40	-22839.84	13767.78	40.4394201	-104.8346043	0.00
6220.00	11.40	186.19	1384.31	-6.51	-22859.50	13765.66	40.4393661	-104.8346120	0.00
6290.69	11.40	186.19	1453.60	-6.59	-22873.39	13764.16	40.4393280	-104.8346174	0.00
6320.00	11.32	172.78	1482.34	-5.96	-22879.13	13764.22	40.4393123	-104.8346172	9.00
6420.00	15.02	135.80	1579.86	6.22	-22898.19	13774.51	40.4392599	-104.8345803	9.00
6520.00	21.97	117.40	1674.72	33.61	-22916.11	13800.22	40.4392107	-104.8344880	9.00
6620.00	30.00	107.98	1764.57	75.54	-22932.44	13840.69	40.4391658	-104.8343426	9.00
6720.00	38.42	102.33	1847.22	130.97	-22946.79	13894.95	40.4391263	-104.8341477	9.00
6820.00	47.04	98.47	1920.62	198.54	-22958.80	13961.64	40.4390933	-104.8339082	9.00
6920.00	55.75	95.57	1982.96	276.58	-22968.18	14039.13	40.4390674	-104.8336298	9.00
7020.00	64.52	93.22	2032.72	363.17	-22974.69	14125.51	40.4390494	-104.8333195	9.00
7120.00	73.32	91.19	2068.66	456.19	-22978.17	14218.65	40.4390397	-104.8329849	9.00
7220.00	82.13	89.34	2089.90	553.33	-22978.55	14316.26	40.4390385	-104.8326342	9.00
7312.24	90.27	87.71	2096.00	644.53	-22976.12	14408.18	40.4390450	-104.8323040	9.00
7320.00	90.27	87.71	2095.96	652.22	-22975.81	14415.94	40.4390459	-104.8322761	0.00
7420.00	90.27	87.71	2095.49	751.21	-22971.76	14515.86	40.4390568	-104.8319172	0.00
7520.00	90.27	87.71	2095.01	850.19	-22967.70	14615.77	40.4390678	-104.8315582	0.00
7620.00	90.27	87.71	2094.53	949.18	-22963.65	14715.69	40.4390787	-104.8311993	0.00
7720.00	90.27	87.71	2094.05	1048.17	-22959.60	14815.61	40.4390897	-104.8308403	0.00
7820.00	90.27	87.71	2093.58	1147.16	-22955.54	14915.52	40.4391007	-104.8304814	0.00
7920.00	90.27	87.71	2093.10	1246.15	-22951.49	15015.44	40.4391116	-104.8301224	0.00
8020.00	90.27	87.71	2092.62	1345.13	-22947.43	15115.35	40.4391226	-104.8297634	0.00
8120.00	90.27	87.71	2092.14	1444.12	-22943.38	15215.27	40.4391335	-104.8294045	0.00
8220.00	90.27	87.71	2091.67	1543.11	-22939.33	15315.19	40.4391445	-104.8290455	0.00
8320.00	90.27	87.71	2091.19	1642.10	-22935.27	15415.10	40.4391555	-104.8286866	0.00
8420.00	90.27	87.71	2090.71	1741.08	-22931.22	15515.02	40.4391664	-104.8283276	0.00
8520.00	90.27	87.71	2090.23	1840.07	-22927.17	15614.94	40.4391774	-104.8279687	0.00

ORR_23N-32A-M_PWP__REV-A.1_.las									
8620.00	90.27	87.71	2089.76	1939.06	-22923.11	15714.85	40.4391883	-104.8276097	0.00
8720.00	90.27	87.71	2089.28	2038.05	-22919.06	15814.77	40.4391993	-104.8272508	0.00
8820.00	90.27	87.71	2088.80	2137.03	-22915.00	15914.68	40.4392102	-104.8268918	0.00
8920.00	90.27	87.71	2088.32	2236.02	-22910.95	16014.60	40.4392212	-104.8265328	0.00
9020.00	90.27	87.71	2087.85	2335.01	-22906.90	16114.52	40.4392321	-104.8261739	0.00
9120.00	90.27	87.71	2087.37	2434.00	-22902.84	16214.43	40.4392431	-104.8258149	0.00
9220.00	90.27	87.71	2086.89	2532.98	-22898.79	16314.35	40.4392540	-104.8254560	0.00
9320.00	90.27	87.71	2086.42	2631.97	-22894.74	16414.27	40.4392650	-104.8250970	0.00
9420.00	90.27	87.71	2085.94	2730.96	-22890.68	16514.18	40.4392759	-104.8247381	0.00
9520.00	90.27	87.71	2085.46	2829.95	-22886.63	16614.10	40.4392868	-104.8243791	0.00
9620.00	90.27	87.71	2084.98	2928.94	-22882.58	16714.01	40.4392978	-104.8240201	0.00
9720.00	90.27	87.71	2084.51	3027.92	-22878.52	16813.93	40.4393087	-104.8236612	0.00
9820.00	90.27	87.71	2084.03	3126.91	-22874.47	16913.85	40.4393197	-104.8233022	0.00
9920.00	90.27	87.71	2083.55	3225.90	-22870.41	17013.76	40.4393306	-104.8229433	0.00
10020.00	90.27	87.71	2083.07	3324.89	-22866.36	17113.68	40.4393415	-104.8225843	0.00
10120.00	90.27	87.71	2082.60	3423.87	-22862.31	17213.60	40.4393525	-104.8222253	0.00
10220.00	90.27	87.71	2082.12	3522.86	-22858.25	17313.51	40.4393634	-104.8218664	0.00
10320.00	90.27	87.71	2081.64	3621.85	-22854.20	17413.43	40.4393744	-104.8215074	0.00
10420.00	90.27	87.71	2081.16	3720.84	-22850.15	17513.34	40.4393853	-104.8211485	0.00
10520.00	90.27	87.71	2080.69	3819.82	-22846.09	17613.26	40.4393962	-104.8207895	0.00
10620.00	90.27	87.71	2080.21	3918.81	-22842.04	17713.18	40.4394071	-104.8204306	0.00
10720.00	90.27	87.71	2079.73	4017.80	-22837.99	17813.09	40.4394181	-104.8200716	0.00
10820.00	90.27	87.71	2079.25	4116.79	-22833.93	17913.01	40.4394290	-104.8197126	0.00
10920.00	90.27	87.71	2078.78	4215.78	-22829.88	18012.93	40.4394399	-104.8193537	0.00
11020.00	90.27	87.71	2078.30	4314.76	-22825.82	18112.84	40.4394509	-104.8189947	0.00
11120.00	90.27	87.71	2077.82	4413.75	-22821.77	18212.76	40.4394618	-104.8186358	0.00
11220.00	90.27	87.71	2077.34	4512.74	-22817.72	18312.67	40.4394727	-104.8182768	0.00
11320.00	90.27	87.71	2076.87	4611.73	-22813.66	18412.59	40.4394836	-104.8179178	0.00
11420.00	90.27	87.71	2076.39	4710.71	-22809.61	18512.51	40.4394946	-104.8175589	0.00
11520.00	90.27	87.71	2075.91	4809.70	-22805.56	18612.42	40.4395055	-104.8171999	0.00
11620.00	90.27	87.71	2075.44	4908.69	-22801.50	18712.34	40.4395164	-104.8168410	0.00
11720.00	90.27	87.71	2074.96	5007.68	-22797.45	18812.26	40.4395273	-104.8164820	0.00
11820.00	90.27	87.71	2074.48	5106.66	-22793.40	18912.17	40.4395382	-104.8161230	0.00
11920.00	90.27	87.71	2074.00	5205.65	-22789.34	19012.09	40.4395491	-104.8157641	0.00
12020.00	90.27	87.71	2073.53	5304.64	-22785.29	19112.01	40.4395601	-104.8154051	0.00
12120.00	90.27	87.71	2073.05	5403.63	-22781.23	19211.92	40.4395710	-104.8150462	0.00
12220.00	90.27	87.71	2072.57	5502.62	-22777.18	19311.84	40.4395819	-104.8146872	0.00
12320.00	90.27	87.71	2072.09	5601.60	-22773.13	19411.75	40.4395928	-104.8143282	0.00
12420.00	90.27	87.71	2071.62	5700.59	-22769.07	19511.67	40.4396037	-104.8139693	0.00
12520.00	90.27	87.71	2071.14	5799.58	-22765.02	19611.59	40.4396146	-104.8136103	0.00
12620.00	90.27	87.71	2070.66	5898.57	-22760.97	19711.50	40.4396255	-104.8132514	0.00
12720.00	90.27	87.71	2070.18	5997.55	-22756.91	19811.42	40.4396364	-104.8128924	0.00
12820.00	90.27	87.71	2069.71	6096.54	-22752.86	19911.34	40.4396473	-104.8125334	0.00
12920.00	90.27	87.71	2069.23	6195.53	-22748.81	20011.25	40.4396582	-104.8121745	0.00
13020.00	90.27	87.71	2068.75	6294.52	-22744.75	20111.17	40.4396691	-104.8118155	0.00
13120.00	90.27	87.71	2068.27	6393.50	-22740.70	20211.08	40.4396801	-104.8114566	0.00
13220.00	90.27	87.71	2067.80	6492.49	-22736.64	20311.00	40.4396910	-104.8110976	0.00
13320.00	90.27	87.71	2067.32	6591.48	-22732.59	20410.92	40.4397019	-104.8107386	0.00

ORR_23N-32A-M_PWP__REV-A.1_.las									
13420.00	90.27	87.71	2066.84	6690.47	-22728.54	20510.83	40.4397128	-104.8103797	0.00
13520.00	90.27	87.71	2066.36	6789.45	-22724.48	20610.75	40.4397237	-104.8100207	0.00
13620.00	90.27	87.71	2065.89	6888.44	-22720.43	20710.67	40.4397345	-104.8096617	0.00
13720.00	90.27	87.71	2065.41	6987.43	-22716.38	20810.58	40.4397454	-104.8093028	0.00
13820.00	90.27	87.71	2064.93	7086.42	-22712.32	20910.50	40.4397563	-104.8089438	0.00
13920.00	90.27	87.71	2064.46	7185.41	-22708.27	21010.41	40.4397672	-104.8085849	0.00
14020.00	90.27	87.71	2063.98	7284.39	-22704.21	21110.33	40.4397781	-104.8082259	0.00
14120.00	90.27	87.71	2063.50	7383.38	-22700.16	21210.25	40.4397890	-104.8078669	0.00
14220.00	90.27	87.71	2063.02	7482.37	-22696.11	21310.16	40.4397999	-104.8075080	0.00
14320.00	90.27	87.71	2062.55	7581.36	-22692.05	21410.08	40.4398108	-104.8071490	0.00
14420.00	90.27	87.71	2062.07	7680.34	-22688.00	21510.00	40.4398217	-104.8067900	0.00
14520.00	90.27	87.71	2061.59	7779.33	-22683.95	21609.91	40.4398326	-104.8064311	0.00
14620.00	90.27	87.71	2061.11	7878.32	-22679.89	21709.83	40.4398435	-104.8060721	0.00
14720.00	90.27	87.71	2060.64	7977.31	-22675.84	21809.74	40.4398543	-104.8057132	0.00
14820.00	90.27	87.71	2060.16	8076.29	-22671.79	21909.66	40.4398652	-104.8053542	0.00
14920.00	90.27	87.71	2059.68	8175.28	-22667.73	22009.58	40.4398761	-104.8049952	0.00
15020.00	90.27	87.71	2059.20	8274.27	-22663.68	22109.49	40.4398870	-104.8046363	0.00
15120.00	90.27	87.71	2058.73	8373.26	-22659.62	22209.41	40.4398979	-104.8042773	0.00
15220.00	90.27	87.71	2058.25	8472.25	-22655.57	22309.33	40.4399088	-104.8039183	0.00
15320.00	90.27	87.71	2057.77	8571.23	-22651.52	22409.24	40.4399196	-104.8035594	0.00
15420.00	90.27	87.71	2057.29	8670.22	-22647.46	22509.16	40.4399305	-104.8032004	0.00
15520.00	90.27	87.71	2056.82	8769.21	-22643.41	22609.07	40.4399414	-104.8028414	0.00
15620.00	90.27	87.71	2056.34	8868.20	-22639.36	22708.99	40.4399523	-104.8024825	0.00
15691.17	90.27	87.71	2056.00	8938.65	-22636.47	22780.10	40.4399600	-104.8022270	0.00



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Guenaler
Scale	0.999962	Report Generated	10/25/2016 at 7:02:23 PM
Convergence at slot	0.44° East	Database/Source file	WA_DEN_Denver_Defn/ORR_23N-32A-M_PWP__REV-A.1_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.71	80.10	3185322.32	1404728.32	40°26'32.896"N	104°50'03.016"W
Facility Reference Pt			3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W
Field Reference Pt			3171284.48	1426358.81	40°30'07.643"N	104°53'02.634"W

WELLPATH DATUM

Calculation method	Minimum curvature	PRECISION 462 (20'KB) (RKB) to Facility Vertical Datum	4744.00ft
Horizontal Reference Pt	Slot	PRECISION 462 (20'KB) (RKB) to Mean Sea Level	4744.00ft
Vertical Reference Pt	PRECISION 462 (20'KB) (RKB)	PRECISION 462 (20'KB) (RKB) to Mud Line at Slot (SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36))	4744.00ft
MD Reference Pt	PRECISION 462 (20'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	95.86°



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 2 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	186.192	0.00	0.00	0.00	0.00	40°26'32.896"N	104°50'03.016"W	0.00	
20.00	0.000	186.192	20.00	0.00	0.00	0.00	40°26'32.896"N	104°50'03.016"W	0.00	Tie On
120.00†	0.000	186.192	120.00	0.00	0.00	0.00	40°26'32.896"N	104°50'03.016"W	0.00	
200.00	0.000	186.192	200.00	0.00	0.00	0.00	40°26'32.896"N	104°50'03.016"W	0.00	End of Tangent
220.00†	0.400	186.192	220.00	0.00	-0.07	-0.01	40°26'32.895"N	104°50'03.016"W	2.00	
320.00†	2.400	186.192	319.96	-0.01	-2.50	-0.27	40°26'32.871"N	104°50'03.020"W	2.00	
420.00†	4.400	186.192	419.78	-0.05	-8.39	-0.91	40°26'32.813"N	104°50'03.028"W	2.00	
520.00†	6.400	186.192	519.33	-0.10	-17.75	-1.93	40°26'32.721"N	104°50'03.041"W	2.00	
620.00†	8.400	186.192	618.50	-0.18	-30.55	-3.31	40°26'32.594"N	104°50'03.059"W	2.00	
720.00†	10.400	186.192	717.15	-0.27	-46.79	-5.08	40°26'32.434"N	104°50'03.082"W	2.00	
770.07	11.401	186.192	766.31	-0.32	-56.20	-6.10	40°26'32.341"N	104°50'03.095"W	2.00	End of Build
820.00†	11.401	186.192	815.26	-0.38	-66.02	-7.16	40°26'32.244"N	104°50'03.109"W	0.00	
920.00†	11.401	186.192	913.29	-0.49	-85.67	-9.29	40°26'32.049"N	104°50'03.136"W	0.00	
1020.00†	11.401	186.192	1011.31	-0.61	-105.32	-11.43	40°26'31.855"N	104°50'03.164"W	0.00	
1120.00†	11.401	186.192	1109.34	-0.72	-124.97	-13.56	40°26'31.661"N	104°50'03.191"W	0.00	
1220.00†	11.401	186.192	1207.37	-0.83	-144.63	-15.69	40°26'31.467"N	104°50'03.219"W	0.00	
1320.00†	11.401	186.192	1305.39	-0.95	-164.28	-17.82	40°26'31.273"N	104°50'03.247"W	0.00	
1420.00†	11.401	186.192	1403.42	-1.06	-183.93	-19.96	40°26'31.078"N	104°50'03.274"W	0.00	
1520.00†	11.401	186.192	1501.45	-1.17	-203.58	-22.09	40°26'30.884"N	104°50'03.302"W	0.00	
1620.00†	11.401	186.192	1599.47	-1.29	-223.24	-24.22	40°26'30.690"N	104°50'03.329"W	0.00	
1720.00†	11.401	186.192	1697.50	-1.40	-242.89	-26.35	40°26'30.496"N	104°50'03.357"W	0.00	
1820.00†	11.401	186.192	1795.53	-1.51	-262.54	-28.48	40°26'30.302"N	104°50'03.384"W	0.00	
1920.00†	11.401	186.192	1893.55	-1.63	-282.19	-30.62	40°26'30.107"N	104°50'03.412"W	0.00	
2020.00†	11.401	186.192	1991.58	-1.74	-301.85	-32.75	40°26'29.913"N	104°50'03.440"W	0.00	
2120.00†	11.401	186.192	2089.61	-1.85	-321.50	-34.88	40°26'29.719"N	104°50'03.467"W	0.00	
2220.00†	11.401	186.192	2187.63	-1.96	-341.15	-37.01	40°26'29.525"N	104°50'03.495"W	0.00	
2320.00†	11.401	186.192	2285.66	-2.08	-360.81	-39.15	40°26'29.331"N	104°50'03.522"W	0.00	
2420.00†	11.401	186.192	2383.69	-2.19	-380.46	-41.28	40°26'29.136"N	104°50'03.550"W	0.00	
2520.00†	11.401	186.192	2481.71	-2.30	-400.11	-43.41	40°26'28.942"N	104°50'03.577"W	0.00	
2620.00†	11.401	186.192	2579.74	-2.42	-419.76	-45.54	40°26'28.748"N	104°50'03.605"W	0.00	



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 3 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2720.00†	11.401	186.192	2677.77	-2.53	-439.42	-47.67	40°26'28.554"N	104°50'03.633"W	0.00	
2820.00†	11.401	186.192	2775.79	-2.64	-459.07	-49.81	40°26'28.360"N	104°50'03.660"W	0.00	
2920.00†	11.401	186.192	2873.82	-2.76	-478.72	-51.94	40°26'28.165"N	104°50'03.688"W	0.00	
3020.00†	11.401	186.192	2971.85	-2.87	-498.37	-54.07	40°26'27.971"N	104°50'03.715"W	0.00	
3120.00†	11.401	186.192	3069.87	-2.98	-518.03	-56.20	40°26'27.777"N	104°50'03.743"W	0.00	
3220.00†	11.401	186.192	3167.90	-3.10	-537.68	-58.33	40°26'27.583"N	104°50'03.770"W	0.00	
3320.00†	11.401	186.192	3265.93	-3.21	-557.33	-60.47	40°26'27.389"N	104°50'03.798"W	0.00	
3420.00†	11.401	186.192	3363.95	-3.32	-576.98	-62.60	40°26'27.194"N	104°50'03.826"W	0.00	
3520.00†	11.401	186.192	3461.98	-3.44	-596.64	-64.73	40°26'27.000"N	104°50'03.853"W	0.00	
3620.00†	11.401	186.192	3560.01	-3.55	-616.29	-66.86	40°26'26.806"N	104°50'03.881"W	0.00	
3720.00†	11.401	186.192	3658.03	-3.66	-635.94	-69.00	40°26'26.612"N	104°50'03.908"W	0.00	
3820.00†	11.401	186.192	3756.06	-3.78	-655.59	-71.13	40°26'26.418"N	104°50'03.936"W	0.00	
3920.00†	11.401	186.192	3854.09	-3.89	-675.25	-73.26	40°26'26.223"N	104°50'03.963"W	0.00	
4020.00†	11.401	186.192	3952.11	-4.00	-694.90	-75.39	40°26'26.029"N	104°50'03.991"W	0.00	
4120.00†	11.401	186.192	4050.14	-4.12	-714.55	-77.52	40°26'25.835"N	104°50'04.019"W	0.00	
4220.00†	11.401	186.192	4148.17	-4.23	-734.21	-79.66	40°26'25.641"N	104°50'04.046"W	0.00	
4320.00†	11.401	186.192	4246.19	-4.34	-753.86	-81.79	40°26'25.447"N	104°50'04.074"W	0.00	
4420.00†	11.401	186.192	4344.22	-4.45	-773.51	-83.92	40°26'25.252"N	104°50'04.101"W	0.00	
4520.00†	11.401	186.192	4442.25	-4.57	-793.16	-86.05	40°26'25.058"N	104°50'04.129"W	0.00	
4620.00†	11.401	186.192	4540.27	-4.68	-812.82	-88.19	40°26'24.864"N	104°50'04.157"W	0.00	
4720.00†	11.401	186.192	4638.30	-4.79	-832.47	-90.32	40°26'24.670"N	104°50'04.184"W	0.00	
4820.00†	11.401	186.192	4736.33	-4.91	-852.12	-92.45	40°26'24.476"N	104°50'04.212"W	0.00	
4920.00†	11.401	186.192	4834.35	-5.02	-871.77	-94.58	40°26'24.282"N	104°50'04.239"W	0.00	
5020.00†	11.401	186.192	4932.38	-5.13	-891.43	-96.71	40°26'24.087"N	104°50'04.267"W	0.00	
5120.00†	11.401	186.192	5030.41	-5.25	-911.08	-98.85	40°26'23.893"N	104°50'04.294"W	0.00	
5220.00†	11.401	186.192	5128.43	-5.36	-930.73	-100.98	40°26'23.699"N	104°50'04.322"W	0.00	
5320.00†	11.401	186.192	5226.46	-5.47	-950.38	-103.11	40°26'23.505"N	104°50'04.350"W	0.00	
5420.00†	11.401	186.192	5324.49	-5.59	-970.04	-105.24	40°26'23.311"N	104°50'04.377"W	0.00	
5520.00†	11.401	186.192	5422.51	-5.70	-989.69	-107.38	40°26'23.116"N	104°50'04.405"W	0.00	
5620.00†	11.401	186.192	5520.54	-5.81	-1009.34	-109.51	40°26'22.922"N	104°50'04.432"W	0.00	



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 4 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5720.00†	11.401	186.192	5618.57	-5.93	-1029.00	-111.64	40°26'22.728"N	104°50'04.460"W	0.00	
5820.00†	11.401	186.192	5716.59	-6.04	-1048.65	-113.77	40°26'22.534"N	104°50'04.487"W	0.00	
5920.00†	11.401	186.192	5814.62	-6.15	-1068.30	-115.90	40°26'22.340"N	104°50'04.515"W	0.00	
6020.00†	11.401	186.192	5912.65	-6.27	-1087.95	-118.04	40°26'22.145"N	104°50'04.543"W	0.00	
6120.00†	11.401	186.192	6010.67	-6.38	-1107.61	-120.17	40°26'21.951"N	104°50'04.570"W	0.00	
6220.00†	11.401	186.192	6108.70	-6.49	-1127.26	-122.30	40°26'21.757"N	104°50'04.598"W	0.00	
6310.69	11.401	186.192	6197.60	-6.59	-1145.08	-124.23	40°26'21.581"N	104°50'04.623"W	0.00	End of Tangent
6320.00†	11.311	181.960	6206.73	-6.54	-1146.91	-124.36	40°26'21.563"N	104°50'04.624"W	9.00	
6420.00†	13.902	141.463	6304.49	2.55	-1166.15	-117.20	40°26'21.373"N	104°50'04.532"W	9.00	
6520.00†	20.457	120.091	6400.07	26.95	-1184.34	-94.55	40°26'21.193"N	104°50'04.239"W	9.00	
6620.00†	28.347	109.464	6491.11	66.04	-1201.05	-56.97	40°26'21.028"N	104°50'03.753"W	9.00	
6720.00†	36.719	103.275	6575.37	118.87	-1215.85	-5.38	40°26'20.881"N	104°50'03.086"W	9.00	
6820.00†	45.306	99.146	6650.77	184.13	-1228.40	58.94	40°26'20.758"N	104°50'02.254"W	9.00	
6920.00†	54.002	96.096	6715.45	260.22	-1238.36	134.41	40°26'20.659"N	104°50'01.278"W	9.00	
7007.48†	61.662	93.939	6762.00	334.21	-1244.77	208.12	40°26'20.596"N	104°50'00.324"W	9.00	SHARON SPRINGS
7020.00†	62.760	93.658	6767.84	345.27	-1245.51	219.17	40°26'20.588"N	104°50'00.182"W	9.00	
7120.00†	71.555	91.578	6806.62	437.18	-1249.66	311.14	40°26'20.547"N	104°49'58.992"W	9.00	
7220.00†	80.369	89.703	6830.86	533.69	-1250.71	408.04	40°26'20.537"N	104°49'57.739"W	9.00	
7320.00†	89.194	87.924	6839.94	632.42	-1248.64	507.50	40°26'20.557"N	104°49'56.453"W	9.00	
7332.24	90.274	87.709	6840.00 [†]	644.53	-1248.18	519.73	40°26'20.562"N	104°49'56.294"W	9.00	End of 3D Arc
7420.00†	90.274	87.709	6839.58	731.41	-1244.67	607.42	40°26'20.597"N	104°49'55.160"W	0.00	
7520.00†	90.274	87.709	6839.10	830.40	-1240.67	707.34	40°26'20.636"N	104°49'53.868"W	0.00	
7620.00†	90.274	87.709	6838.63	929.38	-1236.67	807.26	40°26'20.676"N	104°49'52.576"W	0.00	
7720.00†	90.274	87.709	6838.15	1028.37	-1232.68	907.18	40°26'20.715"N	104°49'51.284"W	0.00	
7820.00†	90.274	87.709	6837.67	1127.36	-1228.68	1007.10	40°26'20.755"N	104°49'49.991"W	0.00	
7920.00†	90.274	87.709	6837.19	1226.35	-1224.68	1107.02	40°26'20.794"N	104°49'48.699"W	0.00	
8020.00†	90.274	87.709	6836.72	1325.34	-1220.68	1206.94	40°26'20.833"N	104°49'47.407"W	0.00	
8120.00†	90.274	87.709	6836.24	1424.32	-1216.69	1306.86	40°26'20.873"N	104°49'46.115"W	0.00	
8220.00†	90.274	87.709	6835.76	1523.31	-1212.69	1406.78	40°26'20.912"N	104°49'44.822"W	0.00	
8320.00†	90.274	87.709	6835.28	1622.30	-1208.69	1506.69	40°26'20.952"N	104°49'43.530"W	0.00	



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 5 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8420.00†	90.274	87.709	6834.81	1721.29	-1204.69	1606.61	40°26'20.991"N	104°49'42.238"W	0.00	
8520.00†	90.274	87.709	6834.33	1820.27	-1200.70	1706.53	40°26'21.031"N	104°49'40.946"W	0.00	
8620.00†	90.274	87.709	6833.85	1919.26	-1196.70	1806.45	40°26'21.070"N	104°49'39.653"W	0.00	
8720.00†	90.274	87.709	6833.37	2018.25	-1192.70	1906.37	40°26'21.110"N	104°49'38.361"W	0.00	
8820.00†	90.274	87.709	6832.90	2117.24	-1188.70	2006.29	40°26'21.149"N	104°49'37.069"W	0.00	
8920.00†	90.274	87.709	6832.42	2216.22	-1184.71	2106.21	40°26'21.188"N	104°49'35.777"W	0.00	
9020.00†	90.274	87.709	6831.94	2315.21	-1180.71	2206.13	40°26'21.228"N	104°49'34.484"W	0.00	
9120.00†	90.274	87.709	6831.47	2414.20	-1176.71	2306.05	40°26'21.267"N	104°49'33.192"W	0.00	
9220.00†	90.274	87.709	6830.99	2513.19	-1172.71	2405.96	40°26'21.307"N	104°49'31.900"W	0.00	
9320.00†	90.274	87.709	6830.51	2612.17	-1168.72	2505.88	40°26'21.346"N	104°49'30.608"W	0.00	
9420.00†	90.274	87.709	6830.03	2711.16	-1164.72	2605.80	40°26'21.385"N	104°49'29.315"W	0.00	
9520.00†	90.274	87.709	6829.56	2810.15	-1160.72	2705.72	40°26'21.425"N	104°49'28.023"W	0.00	
9620.00†	90.274	87.709	6829.08	2909.14	-1156.72	2805.64	40°26'21.464"N	104°49'26.731"W	0.00	
9720.00†	90.274	87.709	6828.60	3008.13	-1152.73	2905.56	40°26'21.504"N	104°49'25.439"W	0.00	
9820.00†	90.274	87.709	6828.12	3107.11	-1148.73	3005.48	40°26'21.543"N	104°49'24.146"W	0.00	
9920.00†	90.274	87.709	6827.65	3206.10	-1144.73	3105.40	40°26'21.582"N	104°49'22.854"W	0.00	
10020.00†	90.274	87.709	6827.17	3305.09	-1140.73	3205.32	40°26'21.622"N	104°49'21.562"W	0.00	
10120.00†	90.274	87.709	6826.69	3404.08	-1136.74	3305.23	40°26'21.661"N	104°49'20.270"W	0.00	
10220.00†	90.274	87.709	6826.21	3503.06	-1132.74	3405.15	40°26'21.700"N	104°49'18.977"W	0.00	
10320.00†	90.274	87.709	6825.74	3602.05	-1128.74	3505.07	40°26'21.740"N	104°49'17.685"W	0.00	
10420.00†	90.274	87.709	6825.26	3701.04	-1124.75	3604.99	40°26'21.779"N	104°49'16.393"W	0.00	
10520.00†	90.274	87.709	6824.78	3800.03	-1120.75	3704.91	40°26'21.819"N	104°49'15.101"W	0.00	
10620.00†	90.274	87.709	6824.30	3899.01	-1116.75	3804.83	40°26'21.858"N	104°49'13.808"W	0.00	
10720.00†	90.274	87.709	6823.83	3998.00	-1112.75	3904.75	40°26'21.897"N	104°49'12.516"W	0.00	
10820.00†	90.274	87.709	6823.35	4096.99	-1108.76	4004.67	40°26'21.937"N	104°49'11.224"W	0.00	
10920.00†	90.274	87.709	6822.87	4195.98	-1104.76	4104.59	40°26'21.976"N	104°49'09.932"W	0.00	
11020.00†	90.274	87.709	6822.40	4294.97	-1100.76	4204.51	40°26'22.015"N	104°49'08.639"W	0.00	
11120.00†	90.274	87.709	6821.92	4393.95	-1096.76	4304.42	40°26'22.055"N	104°49'07.347"W	0.00	
11220.00†	90.274	87.709	6821.44	4492.94	-1092.77	4404.34	40°26'22.094"N	104°49'06.055"W	0.00	
11320.00†	90.274	87.709	6820.96	4591.93	-1088.77	4504.26	40°26'22.133"N	104°49'04.763"W	0.00	



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 6 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11420.00†	90.274	87.709	6820.49	4690.92	-1084.77	4604.18	40°26'22.173"N	104°49'03.470"W	0.00	
11520.00†	90.274	87.709	6820.01	4789.90	-1080.77	4704.10	40°26'22.212"N	104°49'02.178"W	0.00	
11620.00†	90.274	87.709	6819.53	4888.89	-1076.78	4804.02	40°26'22.251"N	104°49'00.886"W	0.00	
11720.00†	90.274	87.709	6819.05	4987.88	-1072.78	4903.94	40°26'22.290"N	104°48'59.594"W	0.00	
11820.00†	90.274	87.709	6818.58	5086.87	-1068.78	5003.86	40°26'22.330"N	104°48'58.301"W	0.00	
11920.00†	90.274	87.709	6818.10	5185.85	-1064.78	5103.78	40°26'22.369"N	104°48'57.009"W	0.00	
12020.00†	90.274	87.709	6817.62	5284.84	-1060.79	5203.69	40°26'22.408"N	104°48'55.717"W	0.00	
12120.00†	90.274	87.709	6817.14	5383.83	-1056.79	5303.61	40°26'22.448"N	104°48'54.425"W	0.00	
12220.00†	90.274	87.709	6816.67	5482.82	-1052.79	5403.53	40°26'22.487"N	104°48'53.132"W	0.00	
12320.00†	90.274	87.709	6816.19	5581.81	-1048.79	5503.45	40°26'22.526"N	104°48'51.840"W	0.00	
12420.00†	90.274	87.709	6815.71	5680.79	-1044.80	5603.37	40°26'22.565"N	104°48'50.548"W	0.00	
12520.00†	90.274	87.709	6815.23	5779.78	-1040.80	5703.29	40°26'22.605"N	104°48'49.256"W	0.00	
12620.00†	90.274	87.709	6814.76	5878.77	-1036.80	5803.21	40°26'22.644"N	104°48'47.963"W	0.00	
12720.00†	90.274	87.709	6814.28	5977.76	-1032.80	5903.13	40°26'22.683"N	104°48'46.671"W	0.00	
12820.00†	90.274	87.709	6813.80	6076.74	-1028.81	6003.05	40°26'22.723"N	104°48'45.379"W	0.00	
12920.00†	90.274	87.709	6813.32	6175.73	-1024.81	6102.96	40°26'22.762"N	104°48'44.087"W	0.00	
13020.00†	90.274	87.709	6812.85	6274.72	-1020.81	6202.88	40°26'22.801"N	104°48'42.794"W	0.00	
13120.00†	90.274	87.709	6812.37	6373.71	-1016.81	6302.80	40°26'22.840"N	104°48'41.502"W	0.00	
13220.00†	90.274	87.709	6811.89	6472.69	-1012.82	6402.72	40°26'22.880"N	104°48'40.210"W	0.00	
13320.00†	90.274	87.709	6811.42	6571.68	-1008.82	6502.64	40°26'22.919"N	104°48'38.918"W	0.00	
13420.00†	90.274	87.709	6810.94	6670.67	-1004.82	6602.56	40°26'22.958"N	104°48'37.625"W	0.00	
13520.00†	90.274	87.709	6810.46	6769.66	-1000.82	6702.48	40°26'22.997"N	104°48'36.333"W	0.00	
13620.00†	90.274	87.709	6809.98	6868.64	-996.83	6802.40	40°26'23.037"N	104°48'35.041"W	0.00	
13720.00†	90.274	87.709	6809.51	6967.63	-992.83	6902.32	40°26'23.076"N	104°48'33.748"W	0.00	
13820.00†	90.274	87.709	6809.03	7066.62	-988.83	7002.24	40°26'23.115"N	104°48'32.456"W	0.00	
13920.00†	90.274	87.709	6808.55	7165.61	-984.83	7102.15	40°26'23.154"N	104°48'31.164"W	0.00	
14020.00†	90.274	87.709	6808.07	7264.60	-980.84	7202.07	40°26'23.193"N	104°48'29.872"W	0.00	
14120.00†	90.274	87.709	6807.60	7363.58	-976.84	7301.99	40°26'23.233"N	104°48'28.579"W	0.00	
14220.00†	90.274	87.709	6807.12	7462.57	-972.84	7401.91	40°26'23.272"N	104°48'27.287"W	0.00	
14320.00†	90.274	87.709	6806.64	7561.56	-968.84	7501.83	40°26'23.311"N	104°48'25.995"W	0.00	



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 7 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14420.00†	90.274	87.709	6806.16	7660.55	-964.85	7601.75	40°26'23.350"N	104°48'24.703"W	0.00	
14520.00†	90.274	87.709	6805.69	7759.53	-960.85	7701.67	40°26'23.389"N	104°48'23.410"W	0.00	
14620.00†	90.274	87.709	6805.21	7858.52	-956.85	7801.59	40°26'23.429"N	104°48'22.118"W	0.00	
14720.00†	90.274	87.709	6804.73	7957.51	-952.85	7901.51	40°26'23.468"N	104°48'20.826"W	0.00	
14820.00†	90.274	87.709	6804.25	8056.50	-948.86	8001.42	40°26'23.507"N	104°48'19.534"W	0.00	
14920.00†	90.274	87.709	6803.78	8155.48	-944.86	8101.34	40°26'23.546"N	104°48'18.241"W	0.00	
15020.00†	90.274	87.709	6803.30	8254.47	-940.86	8201.26	40°26'23.585"N	104°48'16.949"W	0.00	
15120.00†	90.274	87.709	6802.82	8353.46	-936.86	8301.18	40°26'23.625"N	104°48'15.657"W	0.00	
15220.00†	90.274	87.709	6802.34	8452.45	-932.87	8401.10	40°26'23.664"N	104°48'14.364"W	0.00	
15320.00†	90.274	87.709	6801.87	8551.44	-928.87	8501.02	40°26'23.703"N	104°48'13.072"W	0.00	
15420.00†	90.274	87.709	6801.39	8650.42	-924.87	8600.94	40°26'23.742"N	104°48'11.780"W	0.00	
15520.00†	90.274	87.709	6800.91	8749.41	-920.88	8700.86	40°26'23.781"N	104°48'10.488"W	0.00	
15620.00†	90.274	87.709	6800.44	8848.40	-916.88	8800.78	40°26'23.820"N	104°48'09.195"W	0.00	
15711.17	90.274	87.709	6800.00 ²	8938.65	-913.23	8891.87	40°26'23.856"N	104°48'08.017"W	0.00	End of Tangent

HOLE & CASING SECTIONS

- Ref Wellbore: ORR 23N-32A-M PWB Ref Wellpath: ORR 23N-32A-M PWP (REV-A.1)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	20.00	1800.00	1780.00	20.00	1775.92	0.00	0.00	-258.61	-28.06
8.5in Open Hole	1800.00	15800.00	14000.00	1775.92	N/A	-258.61	-28.06	N/A	N/A



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 8 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.31-T06N-R66W		0.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	polygon
SEC.31-T06N-R67W		0.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	point
SEC.32-T06N-R66W		0.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	polygon
SEC.32-T06N-R67W		0.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	point
SEC.35-T06N-R67W		0.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	polygon
SEC.36-T06N-R67W		0.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	polygon
2) ORR 23N-32A-L BHL ON PLAT REV-1 (1016'FSL & 2580'FWL, SEC.32)	15711.17	6800.00	-913.23	8891.87	3194220.45	1403881.91	40°26'23.856"N	104°48'08.017"W	circle
1) ORR 23N-32A-L ENTRY POINT (1032'FSL & 75'FWL, SEC.31)	7332.24	6840.00	-1248.18	519.73	3185851.39	1403484.13	40°26'20.562"N	104°49'56.294"W	circle
SEC.31/21-T06N-R67W 460' SETBACK		7112.00	0.71	-80.10	3185242.22	1404728.43	40°26'32.903"N	104°50'04.052"W	point

SURVEY PROGRAM - Ref Wellbore: ORR 23N-32A-M PWB Ref Wellpath: ORR 23N-32A-M PWP (REV-A.1)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
20.00	15711.17	BHI NaviTrak (Standard)		ORR 23N-32A-M PWB



Planned Wellpath Report

ORR 23N-32A-M PWP (REV-A.1)

Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	SYNERGY RESOURCES CORPORATION	Slot	SLOT#05 ORR 23N-32A-M (2259'FSL & 454'FEL, SEC.36)
Area	COLORADO	Well	ORR 23N-32A-M
Field	WELD COUNTY (NAD83,TRUE NORTH)	Wellbore	ORR 23N-32A-M PWB
Facility	SEC.36-T06N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7007.48	61.662	93.939	6762.00	SHARON SPRINGS

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
20.00	0.000	186.192	20.00	Tie On
200.00	0.000	186.192	200.00	End of Tangent
770.07	11.401	186.192	766.31	End of Build
6310.69	11.401	186.192	6197.60	End of Tangent
7332.24	90.274	87.709	6840.00	End of 3D Arc
15711.17	90.274	87.709	6800.00	End of Tangent