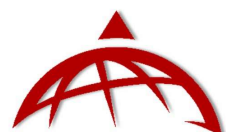




**Anglian Oil Company Ltd.
Northern Lights
AA Pad**

**True North Directional Services Inc.
Site Report**



True North
Directional Services Inc.

Site Report for AA Pad

Project:	Northern Lights
Project is centred on	
Ref. Map Coordinates:	22,273,617.99 N, 1,863,152.84 E
Ref. Geographical Coordinates:	61° 13' 52.9473" N, 109° 44' 08.0097" W
Site:	AA Pad
Site is centred on	
Ref. Map Coordinates:	22,274,752.07 N, 1,878,139.32 E
Ref. Northern Lights Project	1,134.09 N, 14,986.49 E
Centre:	
Ref. Geographical Coordinates:	61° 14' 01.1642" N, 109° 39' 01.3541" W
Vertical Reference:	Ground Level
Horizontal Reference:	AA Pad
Site Elevation:	2,060.40ft above Mean Sea Level
Site Axis:	65.00°
Ground Level:	2,060.40ft
Grid Convergence:	1.18°
Central Meridian:	-111.00°
Coordinate System:	Universal Transverse Mercator, Zone 12 North
North Reference:	Grid
Units:	Feet (US Survey)

Well Listing for AA Pad

Well Name	Slot ID	Elevation (ft)	Northings (ft)	Eastings (ft)	Geographical Coordinates	
					Latitude	Longitude
AA01	Slot 02	2,065.65	22,274,869.01 N	1,878,157.19 E	61° 14' 02.3121" N	109° 39' 00.9395" W
AA02	Slot 03	2,065.65	22,274,839.27 N	1,878,171.06 E	61° 14' 02.0165" N	109° 39' 00.6688" W
AA03	Slot #10	2,065.65	22,274,843.28 N	1,878,024.39 E	61° 14' 02.0858" N	109° 39' 03.6638" W
AA04	Slot 07	2,065.65	22,274,720.33 N	1,878,226.52 E	61° 14' 00.8339" N	109° 38' 59.5858" W
AA05	Slot 15	2,065.65	22,274,694.61 N	1,878,093.72 E	61° 14' 00.6076" N	109° 39' 02.3100" W
AA06	Slot 08	2,065.65	22,274,690.60 N	1,878,240.39 E	61° 14' 00.5383" N	109° 38' 59.3151" W
AA07	Slot 18	2,065.65	22,274,605.40 N	1,878,135.31 E	61° 13' 59.7206" N	109° 39' 01.4978" W
AA08	Slot 12	2,065.65	22,274,783.81 N	1,878,052.12 E	61° 14' 01.4945" N	109° 39' 03.1223" W
AA09	Slot 01	2,065.65	22,274,898.74 N	1,878,143.33 E	61° 14' 02.6078" N	109° 39' 01.2103" W
AA10	Slot 13	2,065.65	22,274,754.07 N	1,878,065.99 E	61° 14' 01.1988" N	109° 39' 02.8515" W
AA11	Slot 17	2,065.65	22,274,635.14 N	1,878,121.45 E	61° 14' 00.0163" N	109° 39' 01.7686" W
AA12	Slot 11	2,065.65	22,274,813.54 N	1,878,038.26 E	61° 14' 01.7901" N	109° 39' 03.3930" W
AA13	Slot 14	2,065.65	22,274,724.34 N	1,878,079.85 E	61° 14' 00.9032" N	109° 39' 02.5808" W
AA14	Slot 05	2,065.65	22,274,779.80 N	1,878,198.79 E	61° 14' 01.4252" N	109° 39' 00.1273" W
AA15	Slot 06	2,065.65	22,274,750.07 N	1,878,212.66 E	61° 14' 01.1295" N	109° 38' 59.8566" W
AA16	Slot 09	2,065.65	22,274,660.86 N	1,878,254.25 E	61° 14' 00.2426" N	109° 38' 59.0443" W
Slot 04	Slot 04	2,065.65	22,274,809.54 N	1,878,184.92 E	61° 14' 01.7208" N	109° 39' 00.3980" W
Slot 16	Slot 16	2,065.65	22,274,664.87 N	1,878,107.58 E	61° 14' 00.3119" N	109° 39' 02.0393" W

All data is in feet (us survey) unless otherwise stated.

All coordinates are relative to Grid North.

Elevations are relative to Mean Sea Level. Coordinates are relative to Map Coordinates.

Site Report for AA Pad
Profile Listing for AA Pad

Well Name	Profile Key	Parent Key	Active	Profile Type	Profile Name	Depth Range (ft)	Date Created	Date Updated
AA01	2		Yes	Survey	Run #1	0.00ft to 5,064.59ft	24/06/2015	14/09/2022
	1		Yes	Plan	Design #1	0.00ft to 5,137.65ft	22/06/2015	14/09/2022
AA02	3		Yes	Survey	Gyro Survey Data	0.00ft to 787.53ft	24/06/2015	14/09/2022
	4	3	Yes	Survey	MWD Run #1	787.53ft to 2,239.63ft	24/06/2015	14/09/2022
	5	4	Yes	Survey	MWD Run #2	2,239.63ft to 4,615.53ft	24/06/2015	14/09/2022
	6	5	Yes	Survey	MWD Run #3	4,615.53ft to 5,063.25ft	24/06/2015	14/09/2022
	7	6	Yes	Survey	MWD Run #4	5,063.25ft to 5,132.97ft	24/06/2015	14/09/2022
	8		Yes	Plan	Design #1	0.00ft to 0.00ft	11/01/2019	14/09/2022
AA03	9		Yes	Survey	As Drilled Surveys	0.00ft to 5,331.66ft	27/07/2012	14/09/2022
AA04	10		Yes	Survey	As Drilled Surveys	0.00ft to 5,423.16ft	18/10/2012	14/09/2022
AA05	11		Yes	Survey	As Drilled Surveys	0.00ft to 5,390.41ft	17/08/2012	14/09/2022
AA06	12		Yes	Survey	As Drilled Surveys	0.00ft to 5,571.70ft	22/10/2012	14/09/2022
AA07	13		Yes	Survey	As Drilled Surveys	0.00ft to 5,708.65ft	23/08/2012	14/09/2022
AA08	14		Yes	Survey	As Drilled Surveys	0.00ft to 5,178.43ft	09/08/2012	14/09/2022
AA09	15		Yes	Survey	As Drilled Surveys	0.00ft to 5,170.98ft	30/09/2012	14/09/2022
AA10	16		Yes	Survey	As Drilled Surveys	0.00ft to 2,456.23ft	10/08/2012	14/09/2022
	17	16	Yes	Survey	Sidetrack Surveys	2,456.23ft to 5,206.68ft	17/09/2012	14/09/2022
AA11	18		Yes	Survey	As Drilled Surveys	0.00ft to 5,728.34ft	19/08/2012	14/09/2022
AA12	19		Yes	Survey	As Drilled Surveys	0.00ft to 5,039.36ft	02/08/2012	14/09/2022
AA13	20		Yes	Survey	SAGD Producer	0.00ft to 5,269.02ft	14/08/2012	14/09/2022
AA14	21		Yes	Survey	SAGD Injector	0.00ft to 5,152.96ft	12/10/2012	14/09/2022
AA15	22		Yes	Survey	As Drilled Surveys	0.00ft to 5,231.21ft	14/10/2012	14/09/2022
AA16	54		Yes	Survey	Run #1	0.00ft to 981.26ft	19/09/2017	17/11/2025
	55	54	Yes	Survey	Run #2	981.26ft to 2,508.28ft	21/09/2017	17/11/2025
	56	55	Yes	Survey	Run #3	2,508.28ft to 3,926.69ft	18/10/2017	17/11/2025
	57	56	Yes	Survey	Run #4	3,926.69ft to 5,371.72ft	18/10/2017	19/11/2025
	53		Yes	Plan	Design #1	0.00ft to 5,886.80ft	19/09/2017	23/05/2023

Target Listing for AA Pad

Well Name	Target Key	Active	Shape	Target Name	Vert Depth (ft)	Northings (ft)	Eastings (ft)	Date Created	Date Updated
AA01	1	Yes	Circle	AA01 LP	-469.19	22,275,609.98 N	1,879,187.27 E	28/11/2012	13/12/2012
	2	Yes	Circle	AA01 TD	-469.19	22,276,719.20 N	1,881,566.05 E	28/11/2012	26/06/2015

Site Report for AA Pad
Target Listing for AA Pad

Well Name	Target Key	Active	Shape	Target Name	Vert Depth (ft)	Northings (ft)	Eastings (ft)	Date Created	Date Updated
AA02	3	Yes	Circle	AA02 LP	-469.19	22,275,384.00 N	1,879,292.65 E	28/11/2012	13/12/2012
	4	Yes	Circle	AA02 TD	-469.19	22,276,493.23 N	1,881,671.40 E	28/11/2012	13/12/2012
AA03	5	Yes	Circle	AA03 LP	-419.98	22,275,859.75 N	1,879,070.80 E	29/11/2012	13/12/2012
	6	Yes	Circle	AA03 TD	-419.98	22,276,968.98 N	1,881,449.56 E	29/11/2012	13/12/2012
AA04	7	Yes	Circle	AA04 LP	-469.19	22,274,432.49 N	1,879,736.34 E	28/11/2012	13/12/2012
	8	Yes	Circle	AA04 TD	-469.19	22,275,541.73 N	1,882,115.10 E	28/11/2012	13/12/2012
AA05	9	Yes	Circle	AA05 LP	-419.98	22,274,670.37 N	1,879,625.42 E	30/11/2012	13/12/2012
	10	Yes	Circle	AA05 TD	-419.98	22,275,779.60 N	1,882,004.17 E	30/11/2012	13/12/2012
AA06	11	Yes	Circle	AA06 LP	-469.19	22,274,194.62 N	1,879,847.27 E	28/11/2012	13/12/2012
	12	Yes	Circle	AA06 TD	-469.19	22,275,303.85 N	1,882,226.02 E	28/11/2012	13/12/2012
AA07	13	Yes	Circle	AA07 LP	-419.98	22,273,956.74 N	1,879,958.19 E	29/11/2012	13/12/2012
	14	Yes	Circle	AA07 TD	-419.98	22,275,065.98 N	1,882,336.94 E	29/11/2012	13/12/2012
AA08	15	Yes	Circle	Aa08 LP	-419.98	22,275,384.00 N	1,879,292.65 E	30/11/2012	13/12/2012
	16	Yes	Circle	AA08 TD	-419.98	22,276,493.23 N	1,881,671.40 E	30/11/2012	13/12/2012
AA09	17	Yes	Circle	AA09 LP	-469.19	22,275,859.75 N	1,879,070.80 E	28/11/2012	13/12/2012
	18	Yes	Circle	AA09 TD	-469.19	22,276,968.98 N	1,881,449.56 E	28/11/2012	13/12/2012
AA10	19	Yes	Circle	AA10 LP	-419.98	22,275,146.12 N	1,879,403.57 E	30/11/2012	13/12/2012
	20	Yes	Circle	AA10 TD	-419.98	22,276,255.35 N	1,881,782.33 E	30/11/2012	13/12/2012
AA11	21	Yes	Circle	AA11 LP	-419.98	22,274,194.62 N	1,879,847.27 E	30/11/2012	13/12/2012
	22	Yes	Circle	AA11 TD	-419.98	22,275,303.85 N	1,882,226.02 E	30/11/2012	13/12/2012
AA12	23	Yes	Circle	AA12 LP	-419.98	22,275,609.98 N	1,879,187.27 E	30/11/2012	13/12/2012
	24	Yes	Circle	AA12 TD	-419.98	22,276,719.21 N	1,881,566.03 E	30/11/2012	13/12/2012
AA13	25	Yes	Circle	AA13 LP	-419.98	22,274,908.25 N	1,879,514.50 E	30/11/2012	13/12/2012
	26	Yes	Circle	AA13 TD	-419.98	22,276,017.48 N	1,881,893.25 E	30/11/2012	13/12/2012
AA14	27	Yes	Circle	AA14 LP	-469.19	22,274,908.25 N	1,879,514.50 E	28/11/2012	13/12/2012
	28	Yes	Circle	AA14 TD	-469.19	22,276,017.48 N	1,881,893.25 E	28/11/2012	13/12/2012
AA15	29	Yes	Circle	AA15 LP	-469.19	22,274,670.37 N	1,879,625.42 E	28/11/2012	13/12/2012
	30	Yes	Circle	AA15 TD	-469.19	22,275,779.60 N	1,882,004.17 E	28/11/2012	13/12/2012
AA16	68	Yes	Point	Wellhead Target	-1,065.65	22,274,660.86 N	1,878,254.25 E	19/11/2025	19/11/2025
	32	Yes	Circle	AA16 LP (1)	-578.97	22,274,250.82 N	1,878,713.83 E	19/09/2017	14/09/2022
	33	Yes	Circle	AA16 LP (2)	-469.19	22,273,873.54 N	1,879,779.78 E	19/09/2017	14/09/2022
	31	Yes	Polygon	AA16 LP	-469.19	22,273,956.73 N	1,879,958.19 E	19/09/2017	14/09/2022
	34	Yes	Polygon	AA16 TD	-469.19	22,275,065.98 N	1,882,336.95 E	19/09/2017	14/09/2022
Slot 04	37	Yes	Circle	AA18 LP	-469.19	22,275,146.12 N	1,879,403.57 E	28/11/2012	13/12/2012
	38	Yes	Circle	AA18 TD	-469.19	22,276,255.35 N	1,881,782.33 E	28/11/2012	13/12/2012

Site Report for AA Pad

Target Listing for AA Pad

Well Name	Target Key	Active	Shape	Target Name	Vert Depth (ft)	Northings (ft)	Eastings (ft)	Date Created	Date Updated
Slot 16	35	Yes	Circle	AA17 LP	-419.98	22,274,432.49 N	1,879,736.33 E	30/11/2012	13/12/2012
	36	Yes	Circle	AA17 TD	-419.98	22,275,541.73 N	1,882,115.10 E	30/11/2012	13/12/2012

All data is in feet (us survey) unless otherwise stated.
All coordinates are relative to Grid North unless otherwise stated.
Elevations are relative to Mean Sea Level. Coordinates are relative to Map Coordinates.
Global Coordinates are relative to UTM-12N.

Site Report for AA Pad

Slot Layout

