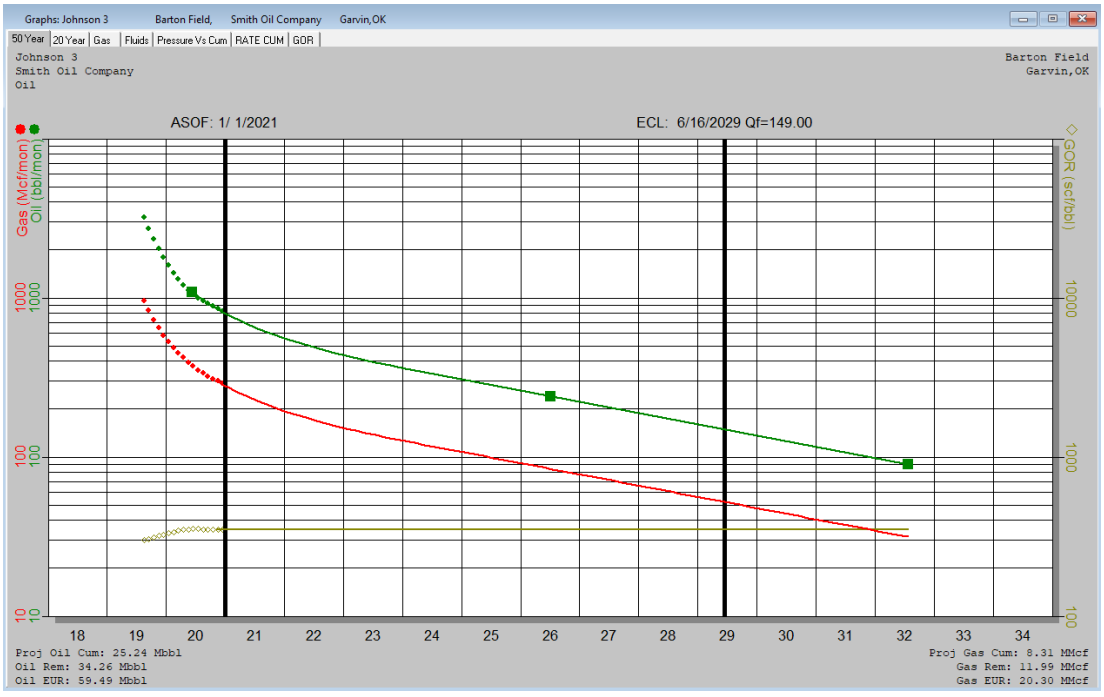
Reserves and Resources Estimation

Reserves and resources are the major asset of every oil and gas company. As such, an accurate and timely unbiased independent third-party estimate of reserves and resources is necessary for a company to determine its value and to assess future development plans.

The experienced professionals at Aeon Petroleum Consultants can provide your company with independent estimates of reserves and resources. Each of the professionals at Aeon have over 40 years of experience in the oil and gas industry. Aeon will handle your project in a professional manner and you can rest assured that none of the work will be relegated to inexperienced engineers or technicians. We promise to treat all clientele with respect and integrity, regardless of the size of the project or the fees involved.

Reserves are typically estimated deterministically using the volumetric, material balance, and decline curve methods. To estimate reserves, Aeon will review geologic data, well logs, core tests, pressure data and tests, oil and gas PVT data, production data, and gas plant records. Since any reserve estimates must be economic by definition, Aeon also reviews historical operating expense and capital cost data to allow a reasonable forecast of future expenses and costs. After a preliminary report is generated, it is checked for errors and reviewed by the client for any necessary reconciliation. A final report is issued upon acknowledgement from the client.



Resources fall into two categories; prospective resources and contingent resources. Occasionally, contingent resources can be estimated deterministically. In most cases, due to the range of geologic and engineering data, prospective and contingent resources are estimated stochastically using the Monte Carlo method. This method calculates volumetric estimates of resources using ranges and distributions of each input parameter (i.e., area, thickness, porosity, recovery factor etc.) to calculate in-place volumes and potentially recoverable volumes of oil and gas. Additionally, there are risk factors associated with any exploration or development project and any estimated values must be “risk Adjusted”. Aeon Petroleum Consultants has developed its own proprietary software to perform the required calculations and estimates. However, the expertise of this method does not lie in the calculations as much as it does in selecting the endpoints and ranges of the parameters. Aeon has many years of experience in reviewing oil and gas prospects and reservoirs and can successfully guide you through any resource estimate.

Jones Oil and Gas
Exeter Prospect
Carbon County, Wyoming
Jurassic Section
As of December 31, 2020

	Stochastic Values			
	P_{90}	P_{50}	P_{10}	P_{mean}
Parameter:				
Thickness (ft)	16.6	24.5	36.3	25.7
Area (acres)	349.7	554.1	879.6	589.4
Porosity (%)	15.8	18.3	21.3	18.5
Water Saturation (%)	39.8	30.1	22.8	30.8
Expansion Factor (scf/ft^3)	64.0	87.9	120.3	90.6
OGIP (MMscf)	3,214.3	6,549.6	13,255.5	7,631.5
Shrinkage (%)	10.4	8.5	7.2	8.5
Recovery Factor (%)	70.6	77.4	84.3	77.4
Yield (STB/MMscf)	3.0	3.8	4.6	3.8
Gas Resources (MMscf)	2,246.4	4,624.4	9,391.6	5,406.9
Condensate Resources (MSTB)	8.2	17.4	36.3	20.6

	Risk Adjusted Values			
	P_{90}	P_{50}	P_{10}	P_{mean}
Gas Resources (MMscf)	1,010.9	2,081.0	4,226.2	2,433.1
Condensate Resources (MSTB)	3.7	7.8	16.3	9.3

In addition to oil and gas reserves and resources estimates, Aeon has a great deal of experience estimating reserves and resources in helium and CO2 bearing reservoirs. To remove helium and CO2 from produced gas requires the installation of a processing plant. Projects of this type involve estimating reserves or resources of the wells proposed for connection to the plant, calculating the plant capacity, determining the initial number of wells needed to commence plant operation, the timing of subsequent wells drilled and completed to maintain plant capacity, and performing economic analysis of the project. Several iterations of this process are required to successfully optimize the economics for development. Aeon has been consulted to optimize many of these types of projects and can certainly handle any similar project.

Ziff Prospect
Grand County, Utah

2C Contingent Resources
Mississippian Lime

Reserves and Economics
as of October 1, 2018

Year	Wells On Line	Gross Raw Gas (Mcf)	Gross Helium (Mcf)	Net Helium (Mcf)	Helium Price ($/Mcf)	Net Revenue (M$)	Net Expenses (M$)	Net Prod Taxes (M$)	Net CAPEX (M$)	Net Income (M$)	NPV @ 10% (M$)
2018		0	0	0	0.00	0	0	0	0	0	0
2019	5	730,000	29,821	26,093	200.00	5,219	727	261	1,500	2,731	2,424
2020	6	730,000	29,821	26,093	200.00	5,219	733	261	250	3,975	5,632
2021	8	730,000	29,821	26,093	200.00	5,219	745	261	500	3,713	8,356
2022	9	730,000	29,821	26,093	200.00	5,219	751	261	250	3,957	10,996
2023	10	730,000	29,821	26,093	200.00	5,219	757	261	750	3,451	13,088
2024	11	730,000	29,821	26,093	200.00	5,219	763	261	250	3,945	15,262
2025	12	715,000	29,208	25,557	200.00	5,111	768	256	250	3,838	17,186
2026	12	620,000	25,327	22,161	200.00	4,432	763	222	0	3,448	18,756
2027	12	500,000	20,425	17,872	200.00	3,574	757	179	0	2,639	19,849
2028	7	300,000	12,255	10,723	200.00	2,145	717	107	500	820	20,158
2029	6	200,000	8,170	7,149	200.00	1,430	706	71	0	652	20,381
2030	3	115,000	4,698	4,111	200.00	822	354	41	0	427	20,514
2031											20,514
2032											20,514
2033											20,514
2034											20,514
2035											20,514
After											20,514
Total		**6,830,000**	**279,006**	**244,130**	**200.00**	**48,826**	**8,538**	**2,441**	**4,250**	**33,597**	**20,514**

NPV @ 5%	**25,261**
NPV @ 15%	**15,532**
NPV @ 20%	**12,607**
NPV @ 25%	**10,427**
NPV @ 30%	**8,766**
NPV @ 40%	**6,453**
NPV @ 50%	**4,960**

Initial Working Interest	**1.00000000**
Initial Net Revenue Interest	**0.87500000**
Helium Content (%)	**4.30**
Helium Recovery Efficiency (%)	**95**
Payout (yrs)	**1.00**
Rate of Return (%)	**100.00**

GrossCost ($/month)	**50,000**
Gross Well Cost ($/well/month)	**500**
Overhead Cost ($/month)	**5,000**
Gross Variable Costs:	
Raw Gas ($/Mcf)	**0.050**
Helium ($/Mcf)	**0.000**
Production Taxes:	
Helium (%)	**5.0**