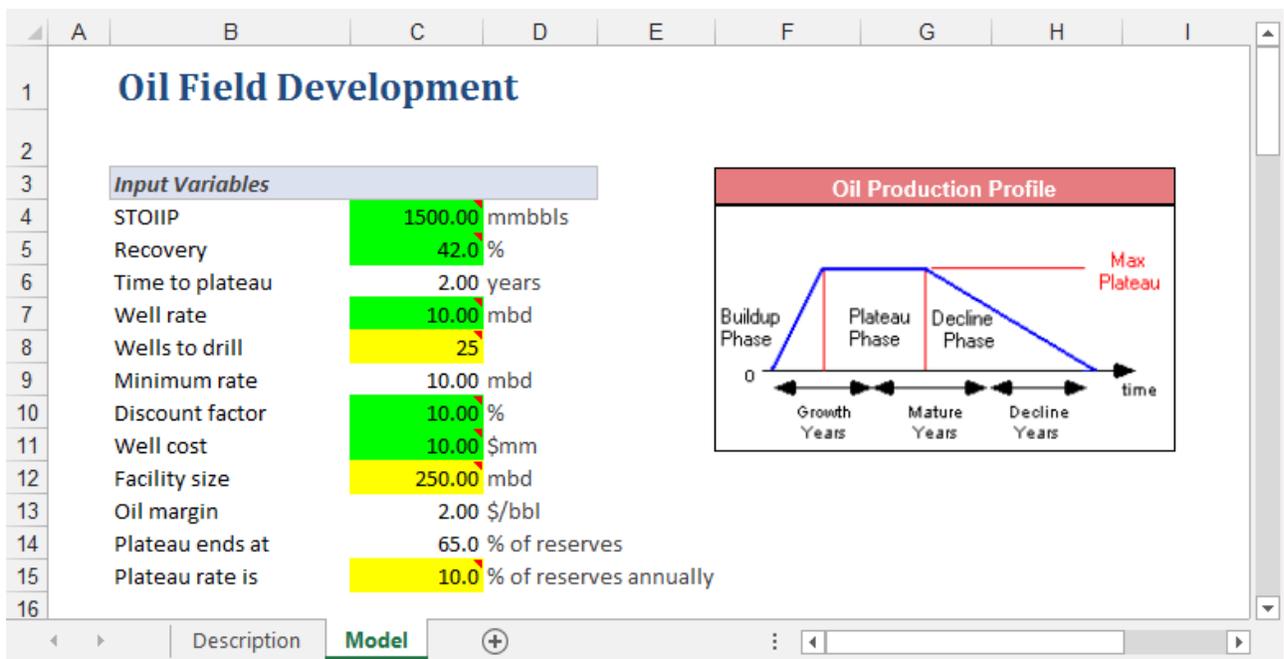


One-Minute Spotlight

THE CRYSTAL BALL SCENARIO ANALYSIS TOOL

Have you ever wondered which combination of assumption values gives you a particular result? The Oracle Crystal Ball Scenario Analysis tool runs a simulation and then sorts and matches all the resulting values of a target forecast with their corresponding assumption values. The output table shows the values of the target forecast extracted for the percentile or value range you designate.

You can run the Scenario Analysis tool on any Crystal Ball model. The example below calculates the Net Present Value (NPV) for an oil field prospect where several key variables, including recovery rate, well rate, and well cost, are uncertain.

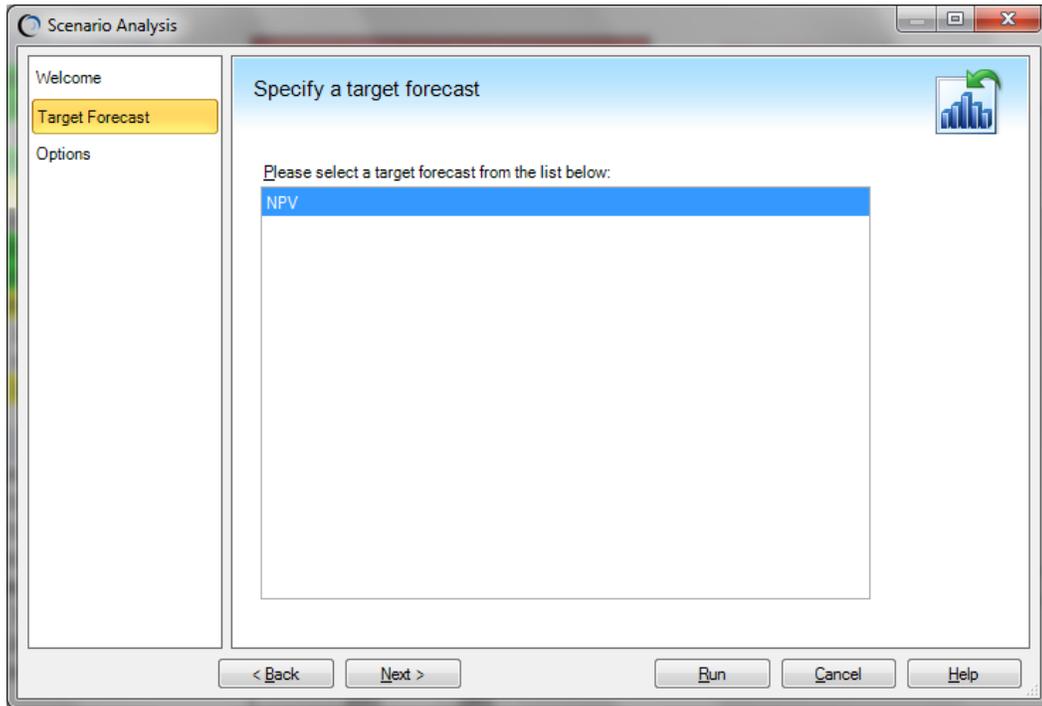


OPENING THE TOOL AND SELECTING A FORECAST

You can open the Scenario Analysis tool through the More Tools menu.

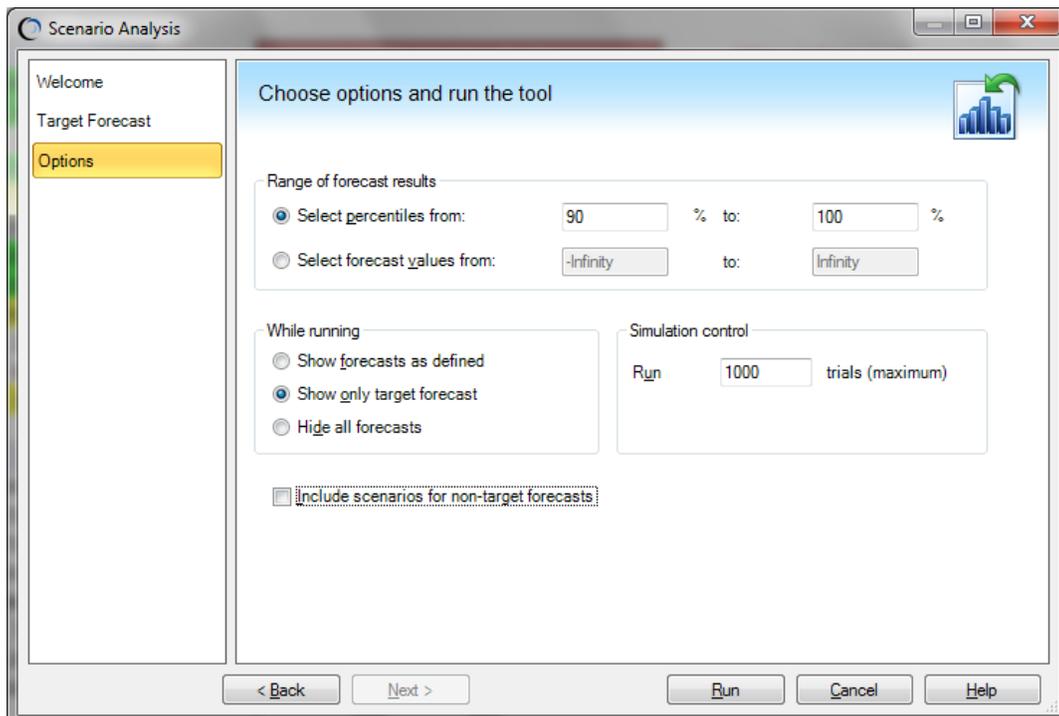
When the tool opens, select a forecast from the Target Forecast list (there is only one forecast in this example). Click Next to view and set options.

Scenario Analysis, continued



SPECIFYING THE OPTIONS

Use the Options screen to select the range of result values you want to examine and how you want Crystal Ball to run the simulation.



Scenario Analysis, continued

Specify the forecast results you are interested in using a range of either percentiles or values. For example, you could choose to look at only the top 10% of all NPV results (the 90%-100%-percentile range), or you could choose to look at all trials where the NPV was within the range of \$200M-\$300M.

In this example, you will view the top 10% of the NPV results, as set in the screen illustration. Click Run to run the tool.

ANALYZING THE SCENARIOS

The tool creates a new workbook and populates it with the sorted forecast results, from low to high value, as shown below.

	A	B	C	D	E	F	G	H	I	J
	Paste Selected Scenario	Trial values	NPV	Discount factor	Recovery	STOILP	Well cost	Well rate		
	Paste Next Scenario									
	Paste Previous Scenario									
	Reset Original Values									
1										
46	94.20%	890	485.76	9.57	43.0	2000.72	10.59	8.32		
47	94.30%	164	487.28	9.55	41.0	2006.57	10.88	10.52		
48	94.40%	668	491.18	8.14	42.9	1785.68	10.42	10.55		
49	94.50%	571	491.45	8.69	40.8	1921.80	9.91	8.35		
50	94.60%	280	492.46	10.96	39.9	2156.65	10.03	13.57		
51	94.70%	958	493.46	9.32	41.1	1949.41	9.95	12.85		
52	94.80%	148	496.07	7.08	43.3	1666.75	9.84	9.79		
53	94.90%	178	496.20	9.39	41.7	1952.22	10.44	10.17		
54	95.00%	446	500.13	8.11	45.0	1697.63	10.04	10.73		
55	95.10%	876	502.18	9.68	42.0	1969.36	10.26	10.40		
56	95.20%	865	503.24	10.86	41.3	2155.74	10.82	9.57		
57	95.30%	107	504.48	9.98	43.0	2002.60	11.27	12.66		
58	95.40%	276	504.57	9.32	43.5	1908.64	10.10	8.63		
59	95.50%	989	504.83	7.60	43.9	1733.45	10.17	8.08		
60	95.60%	969	507.98	9.63	42.3	1923.73	9.44	10.21		
61	95.70%	208	508.09	8.11	43.8	1750.29	9.23	8.06		
62	95.80%	847	516.23	10.13	44.8	2094.55	9.88	8.19		
63	95.90%	679	516.63	9.94	42.4	1984.48	9.90	11.46		
64	96.00%	734	517.05	10.95	40.9	2301.99	10.78	9.29		
65	96.10%	894	523.27	10.58	42.5	2068.76	10.34	11.28		

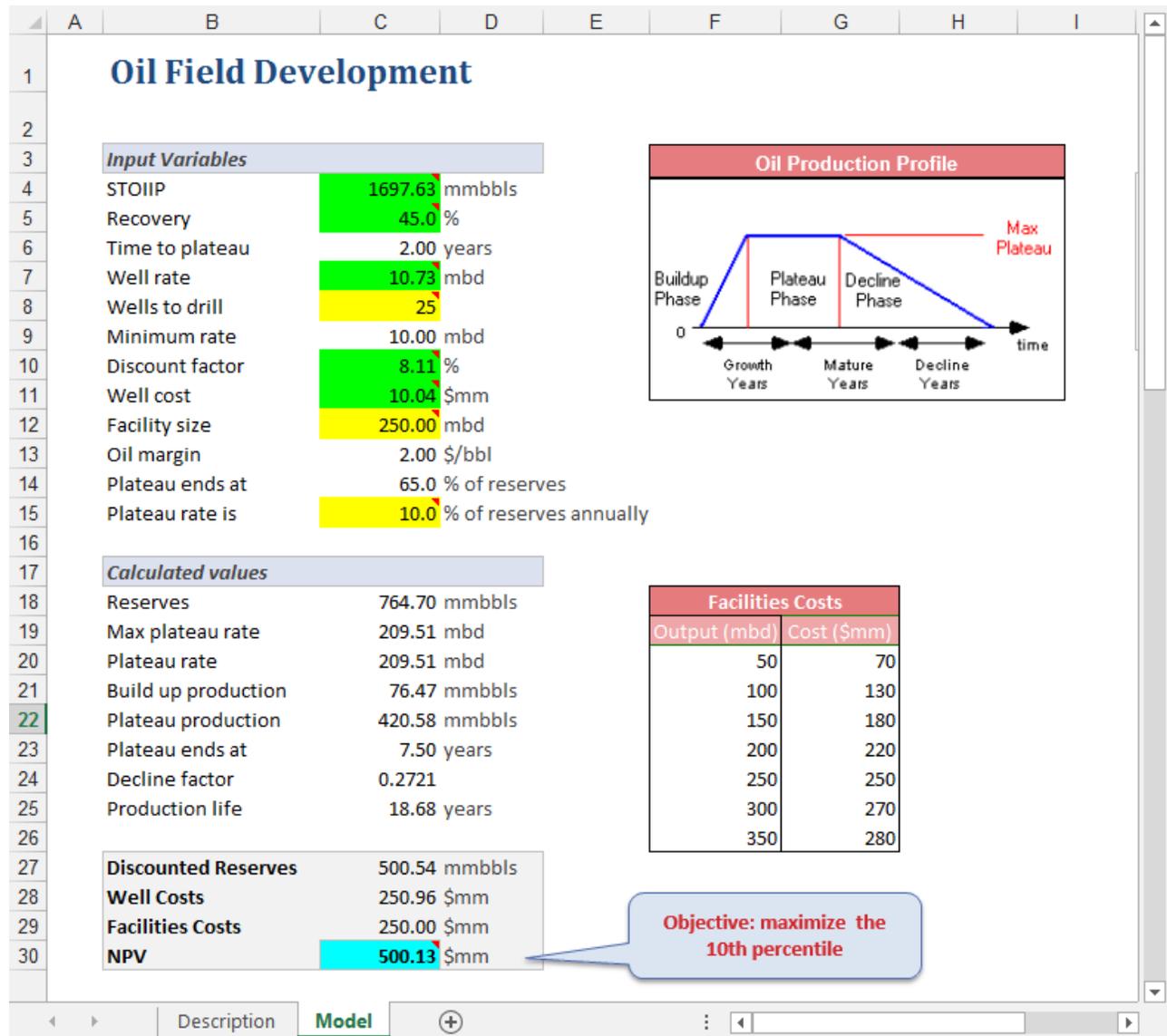
Each row represents one trial of the simulation, or scenario. Column A contains the percentile ranking of the forecast value in Column B. The remaining columns are the assumption values that produced the forecast value.

To view any scenario within your model, simply select the row and click the Paste Selected Scenario button. Crystal Ball then recalculates the workbook with the selected assumption values and updates the forecast cell. If you were interested in the 95th percentile scenario result, you would select that row, as shown above, and then click Paste Selected Scenario.

Scenario Analysis, continued

VIEWING A SCENARIO IN YOUR MODEL

The 95th percentile scenario is entered into the model. You can now examine this outcome in detail.



Scroll through the scenarios in your model using the Paste Next Scenario and Paste Previous Scenario buttons. Click Reset to restore your original values.

You can also use the table of values in that workbook to determine if there are any obvious relationships between a specific range of forecast values and your key assumptions. For example, you could create a scatter chart in Microsoft Excel to check for patterns between the highest NPVs and Well Costs.

For more information or to contact us, browse to <http://www.oracle.com/technetwork/middleware/crystalball/overview/index.html>.