



Canadian Crude Oil Production and Supply Forecast 2005 - 2015

1.0 Introduction

The following material summarizes the 2005 CAPP forecast of crude oil production and supply for the 2005-2015 period. The forecast is used primarily to provide members and industry information to evaluate the need for new oil pipeline capacity from western Canada to various markets. Consequently, this forecast is focused on western Canadian production and supply of crude oil, with the exception of Chart 1 and Table 1, which incorporate a forecast for Atlantic production to show total Canadian crude oil production. This forecast replaces CAPP's prior forecast developed in 2004.

The forecast highlights that there is significant potential for crude oil production growth over the next ten years. Canada's crude oil production growth is driven primarily by the development of oil sands in Alberta and to a lesser degree by offshore projects in eastern Canada.

The following points provide some key forecast highlights:

- Total Canadian production approaches 4 million barrels per day (b/d) by 2015, as it grows from 2.6 million b/d to 3.9 million b/d.
- New large scale oil sands mining projects combined with expansions of Albion, Suncor and Syncrude will mean mining projects account for the majority of the oil sands production.
- Western Canadian crude production growth will require construction of new pipelines to ensure supplies can be transported to markets in Canada, the U.S. and potentially offshore.
- Supply growth will be comprised of both blended bitumen crudes as well as upgraded synthetic crudes as a number of large projects include upgrading as a component of the planned development.

Chart 1 below presents forecast production by type: conventional light and heavy, oil sands mining and in situ and offshore Atlantic. As explained below, the forecast results are labeled as "Moderate Case" and "Constrained Case". The latter provides a sensitivity that reduces production due to insufficient condensate supplies to meet blending demands for traditional dil-bit crudes.

Chart 1: Canadian Crude Oil Production Forecast
Moderate Case

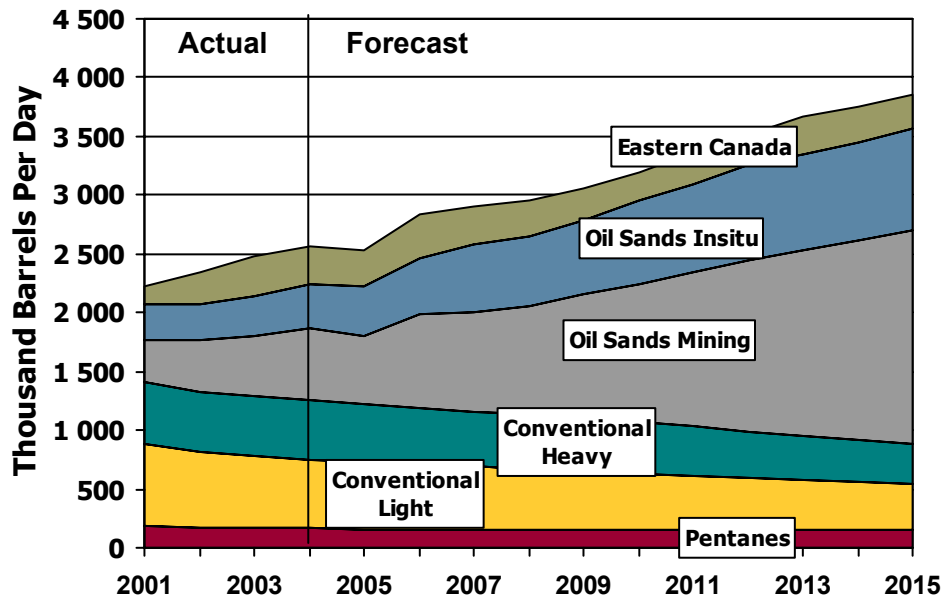


Table 1: Canadian Crude Oil Production*Thousand Barrels Per Day*

Crude Type	1990	2000	2010	2015
Conventional				
Light/Medium Crude	940	734	469	382
Heavy Crude	263	510	440	344
Pentanes	116	194	157	153
Oil Sands				
Bitumen	136	289	989	1,394
Synthetic	209	320	895	1,298
Offshore East Coast	0	145	245	290
Canada	1,664	2,192	3,195	3,861

2.0 Western Canadian Crude Oil Production

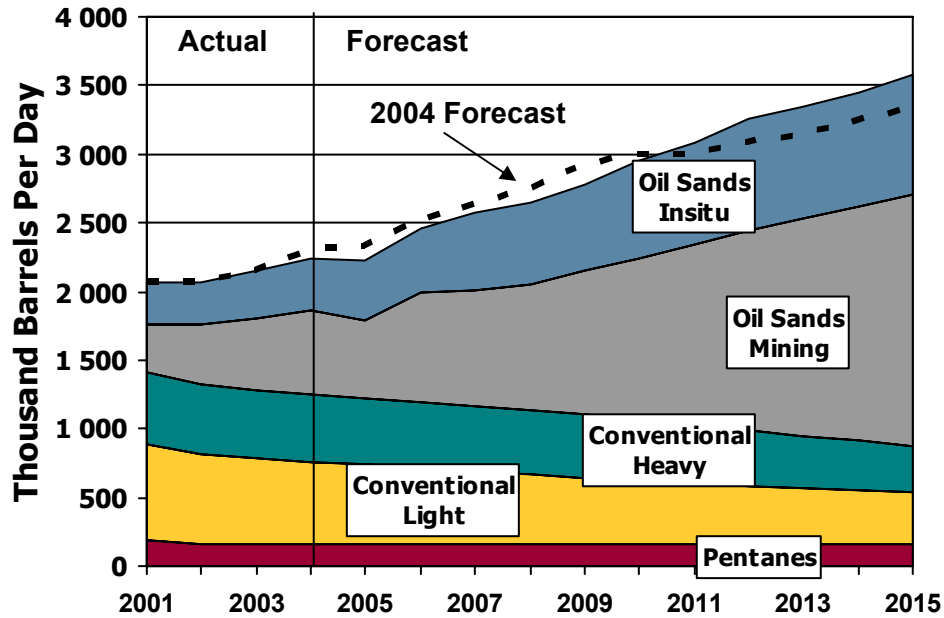
As noted, for this forecast, two production cases have been developed: a moderate case where most bitumen producing projects go ahead as planned and a constrained case where bitumen production is reduced due to a lack of condensate and marginal economics of blending bitumen with synthetic to create syn-bit. Conventional and synthetic crude oil production are unchanged from the moderate case to the constrained case, however, the synthetic supply to market increases in the constrained case because less synthetic is consumed for blending.

The moderate case is based on the results of the 2005 oil sands production survey, however, in some cases the survey data collected has been adjusted to reflect a more conservative start up period as historically no project has achieved full production upon startup. The moderate case should be considered as an expected potential case which assumes that supply growth is unconstrained by market demand, pipeline capacity and the economics of emerging crude types such as syn-bit.

Moderate Case Forecast Highlights:

- Compared with 2004, total production is lower until 2010, but after 2010 there is an increase over last year.
- Total oil sands production grows at an average annual rate of ten percent from 1.0 million b/d in 2004 to 2.7 million b/d in 2015.
- Maturing conventional production continues to decline at an annual rate of about four percent from 1.1 million b/d in 2004 to 726,000 b/d in 2015.
- Overall western Canadian crude oil production grows from 2.2 to 3.6 million b/d in 2015, increasing at an annual rate of five percent.
- Oil sands currently make up about half of all production. By 2015, oil sands will grow to three quarters of all production.

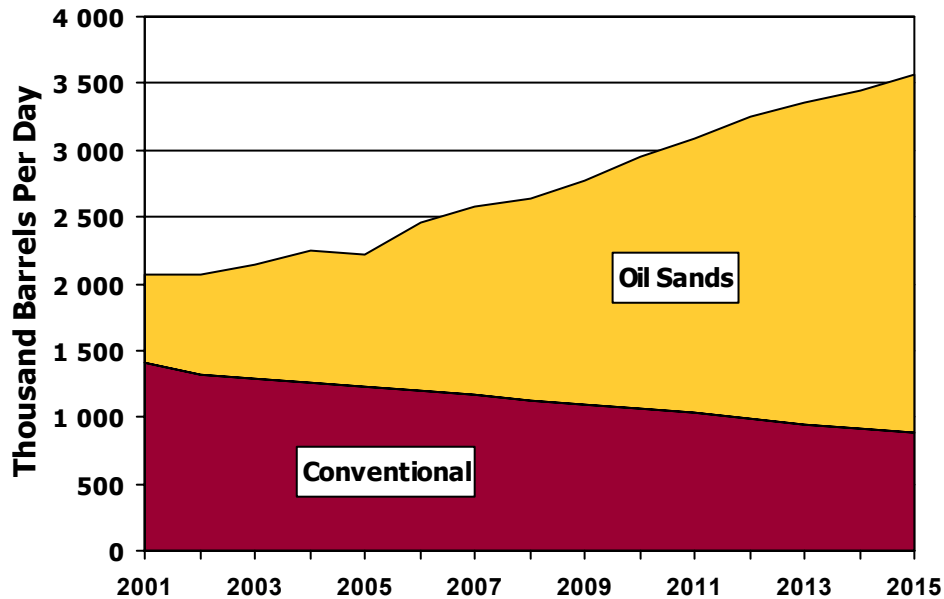
**Chart 2: Western Canadian Crude Oil Production Forecast
Moderate Case**



2.1 Moderate Production Case

Western Canadian Sedimentary Basin (WCSB) crude oil production can be categorized as either conventional or oil sands production. Currently, conventional oil makes up roughly half of all production. However, since 1997 conventional production has been in decline in most areas of western Canada due to its maturing reservoirs. Over the next decade, this decline will be offset by substantial growth in oil sands production and by 2015 the oil sands will contribute to about three quarters of total WCSB production.

**Chart 3: Conventional vs. Oil Sands Production
Moderate Case**



Total conventional production reached its peak in 1997 and has been declining since then. CAPP expects this trend to continue but to be offset by advances in production and drilling technologies. This forecast assumes that annual decline rates for conventional production will continue to be about four or five percent over the next decade.

Table 2: Conventional Crude Oil Production
Moderate Case

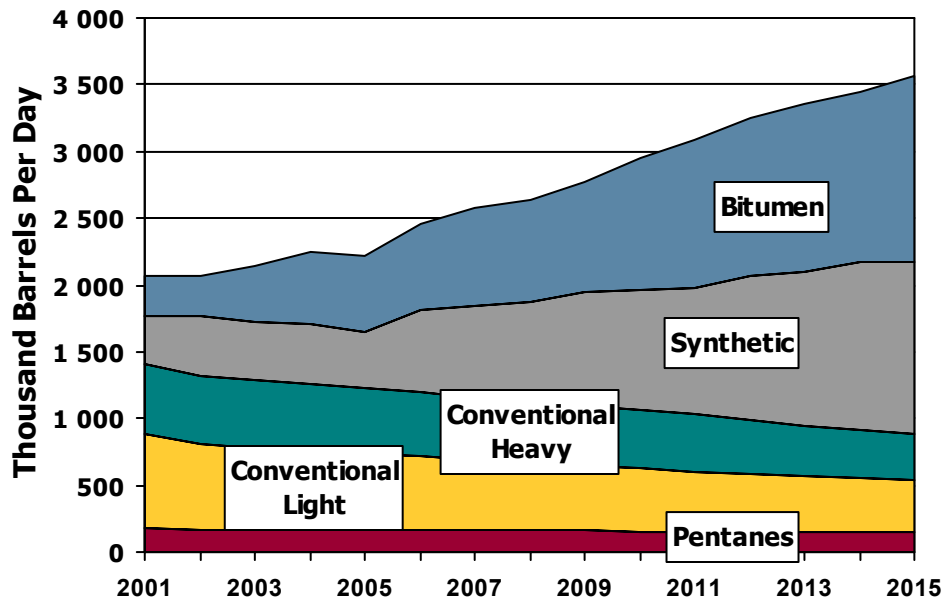
Thousand Barrels Per Day

Crude Type	1990	1997	2004	2010	2015
Light Crude	940	884	593	469	382
Heavy Crude	263	514	497	440	344
Total	1,203	1,398	1,090	909	726

Oil sands production can be divided into in-situ production and mined production. Currently, sixty percent of oil sands production comes from mining projects and by 2015 mined production accounts for half of all production.

When oil sands production is classified by production type, there is a relatively even split between synthetic and bitumen production although in certain years, the growth of one can outpace the other depending on when certain projects start production.

Chart 4: Oil Sands Bitumen and Upgraded Synthetic Production
Moderate Case



Oil sands production is expected to increase by about 1.7 million b/d over the next decade from its current level of roughly one million barrels per day.

Table 3: Oil Sands Production
Moderate Case

Thousand Barrels Per Day

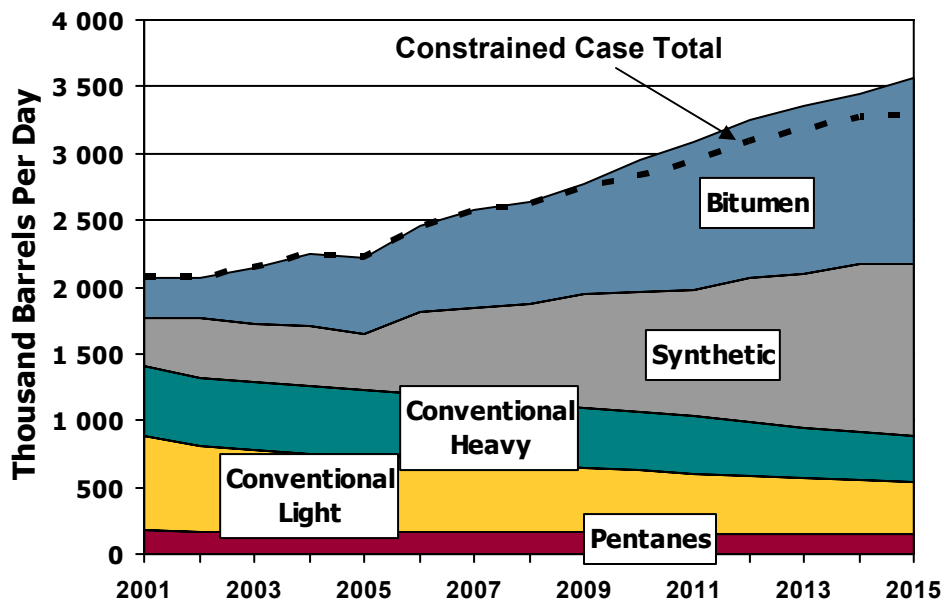
Source	1990	1997	2004	2010	2015
Mining	210	290	608	1,178	1,828
In Situ	135	240	386	707	864
Total	345	530	994	1,884	2,692

2.2 Constrained Production Case

The constrained case is based on the same survey data as the moderate case, however, it assumes that bitumen production is constrained by the availability of diluent and the economics of using synthetic as diluent to create syn-bit. This assumption results in a case where the bitumen constraint gradually increases throughout the forecast.

The reduction in bitumen production reduces the amount of synthetic that is required for blending and allows more synthetic crude to be supplied to market than in the moderate case. This is discussed further in the supply to market section.

Chart 5: Western Canadian Crude Oil Production
Moderate Case vs. Constrained Case



The constrained case assumes that demand for syn-bit will be a limiting factor in terms of the amount of bitumen that can be produced. Although syn-bit is similar to a medium sour crude, it may take several years for syn-bit to be accepted into the market and realize a medium sour price.

During the initial years, syn-bit may be priced more closely to a heavy crude. If so, when light-to-heavy oil price differentials widen, developing a syn-bit blend becomes less economical

because a significant proportion of the blended barrel is comprised of a high price light crude equivalent product, while the blended barrel only receives a heavy price.

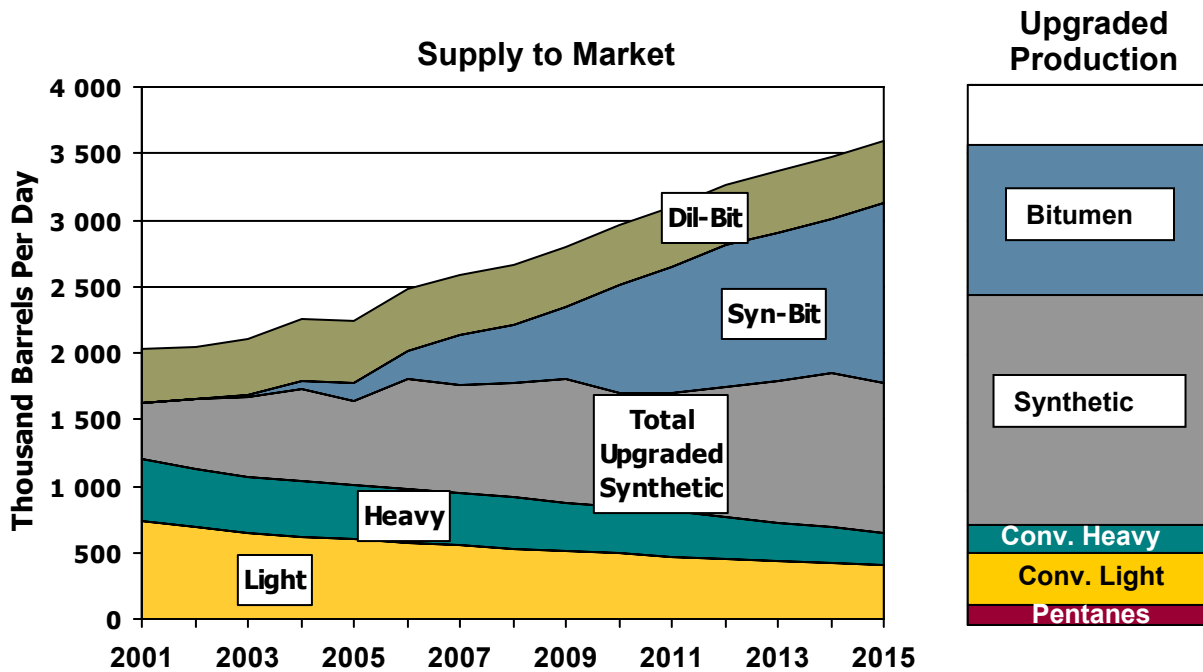
3.0 Western Canadian Crude Oil Supply to Market

In order for conventional heavy oil and bitumen to be transported by pipeline, they must be blended with lighter commodities such as condensate, pentanes and synthetic crude. This blending process lowers the viscosity and density of the crude and raw bitumen allowing for efficient transportation through pipelines.

Although total volumes of supply and production are roughly the same, there are some differences in the composition of their components. The difference between supply and production is made apparent by comparing supply to production in Chart 6 for the year 2015.

The differences are most obvious in the conversion of oil sands production to oil sands supply where a significant amount of light synthetic from mining operations must be blended with bitumen to produce syn-bit blend.

**Chart 6: Western Canadian Crude Oil Supply
Moderate Case**



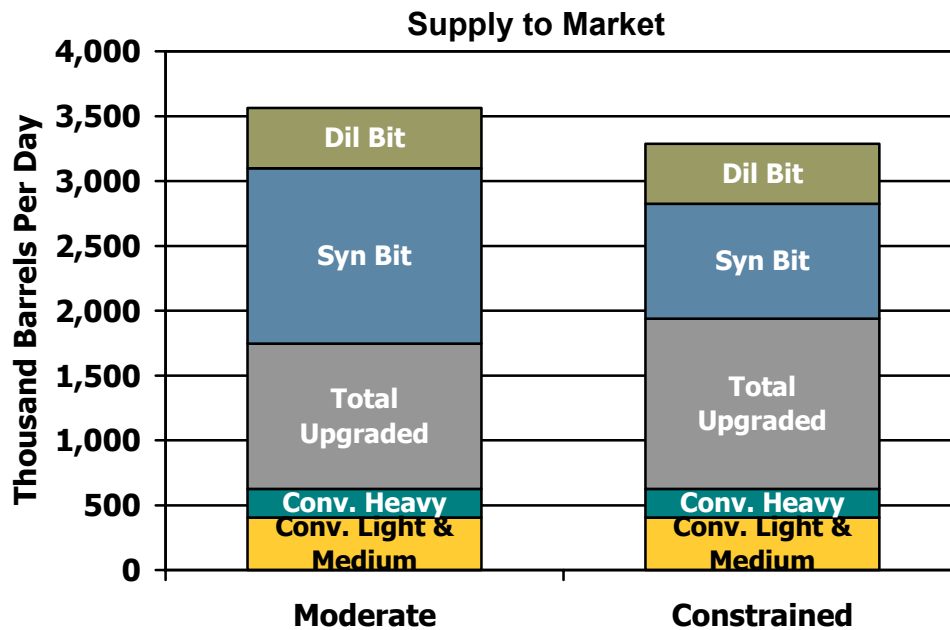
3.1 Moderate Case vs. Constrained Case – Supply to Market

Chart 6 on the previous page shows the blended supply of western Canadian crude oil that will be transported to market in the moderate case. Growth in dil-bit blend is limited by the amount of condensate available, however, it is assumed that the growth in syn-bit is unconstrained.

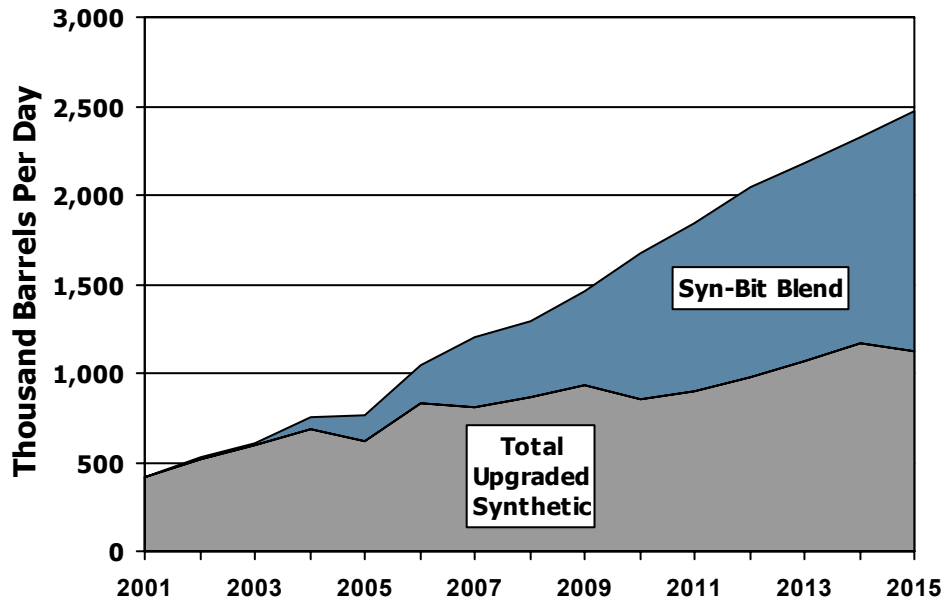
In the constrained case, it is assumed that bitumen production is limited by the amount of condensate available for blending and by the economics of creating and selling syn-bit blend.

Chart 7 shows the difference in supply by components for the year 2015 for the moderate and constrained cases. The key results of this limitation are a reduction in syn-bit blend and an increase in the amount of synthetic that is supplied to market as can be seen in Charts 8 and 9.

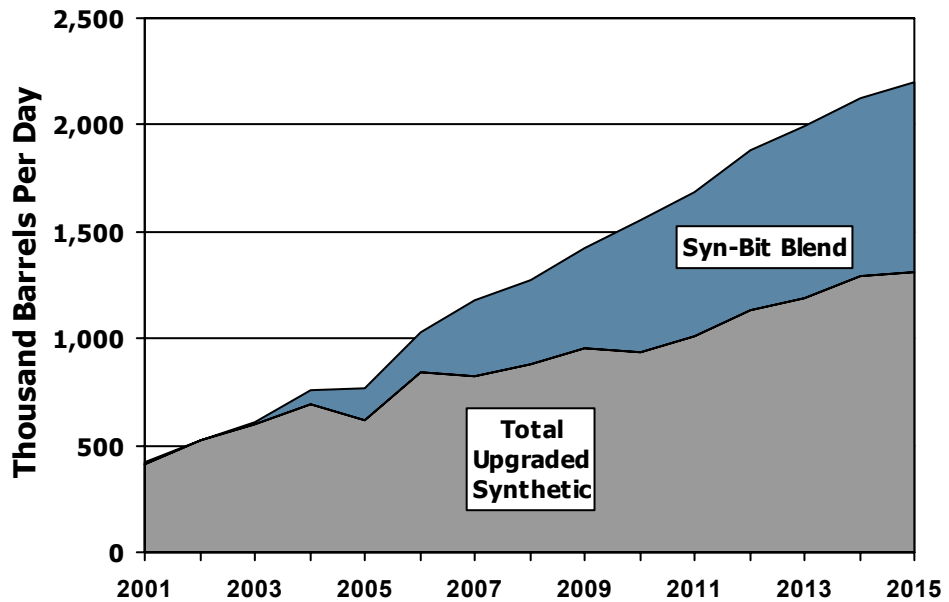
**Chart 7: Western Canadian Crude Oil Supply
Moderate versus Constrained Case in 2015**



**Chart 8: Western Canadian Syn-Bit and Upgraded Synthetic Supply
Moderate Case**



**Chart 9: Western Canadian Syn-Bit and Upgraded Synthetic Supply
Constrained Case**



3.2 Assumptions Used to Develop the Supply to Market Forecast

For both the moderate and constrained cases, CAPP has not made the assumptions that would lead to a combined blend of bitumen, condensate and synthetic crude known as dil-syn-bit. An increase in dil-syn-bit volumes would result in corresponding decreases in syn-bit and dil-bit supply, but would not change the overall supply of blended heavy. Upgraded light synthetic supply to market shows limited growth since most of the incremental growth in light synthetic production is required as diluent for syn-bit blend. The production of heavy and sour synthetic increases throughout the forecast and it is assumed that some of the sour synthetic produced is also blended with bitumen into syn-bit.

For projects that upgrade bitumen at facilities downstream of where the bitumen is produced, the production is classified as bitumen and the supply is classified as synthetic. This applies to both Shell's Albion project and IOL's Kearl Project.

4.0 Methodology

CAPP members supply over ninety-eight percent of Canada's crude oil and natural gas production. CAPP annually surveys members to assess the outlook for crude oil production from the oil sands and develops forecasts every one to two years. Conventional crude oil production is not included in the survey and the conventional forecast is extrapolated from historical trends.

This forecast includes both a moderate case and a constrained case. The moderate case represents an optimistic outlook for western Canadian crude oil production and assumes that most announced projects will proceed as planned. If all projects reach their potential, however, total production could exceed the moderate case. The constrained case assumes that bitumen production is limited by the economics of blending bitumen and synthetic.

In both cases, it is assumed that the development of markets and pipeline infrastructure correspond to western Canadian production and are not limiting factors.

The survey results were not adjusted using a price forecast. CAPP relied on companies to use their own internal price assumptions to develop their production forecasts. As such, if the crude oil prices decline from current levels, there is an expectation that the pace of development would be slower than portrayed in this forecast.

5.0 Production and Supply Tables

The following tables include the numbers used to create the charts in this report as well as more detailed information on production and supply including a breakdown of conventional production by province and further breakdowns of oil sands production and blended supply.

**TABLE 1
CANADIAN CRUDE OIL FORECAST, 2005 - 2015
PRODUCTION - MODERATE CASE**

	<i>Thousand barrels per day</i>														
	<u>2001</u>	<u>2002</u>	<u>2003</u>	Actuals <u>2004</u>	Forecast <u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
CONVENTIONAL															
Light & Medium															
Alberta	481	438	414	389	377	362	347	334	320	307	295	283	272	261	251
B.C.	43	42	37	35	34	32	31	30	29	27	26	25	24	23	22
Saskatchewan	143	139	138	137	133	128	123	118	113	108	104	100	96	92	88
Manitoba	11	11	11	11	11	10	10	9	9	9	8	8	8	7	7
N.W.T.	25	24	22	21	21	20	19	18	18	17	16	15	15	14	14
Total Conv. Light and Medium	704	653	622	593	575	552	530	509	488	469	450	432	415	398	382
Heavy															
Alberta Conv. Heavy	240	222	216	211	209	205	201	197	193	187	180	171	162	154	146
Saskatchewan Conv. Heavy*	283	282	282	286	283	277	272	266	261	253	243	231	219	208	198
Total Conventional Heavy	523	504	498	497	492	482	472	463	454	440	422	401	381	362	344
TOTAL CONVENTIONAL	1 226	1 157	1 120	1 089	1 067	1 034	1 002	972	942	909	872	833	796	760	726
PENTANES/CONDENSATE	186	163	164	162	161	160	159	159	158	157	156	155	155	154	153
OIL SANDS															
Oil Sands Mining	349	441	514	608	566	792	850	925	1 050	1 178	1 311	1 458	1 580	1 703	1 828
Oil Sands In-Situ	310	303	349	386	428	475	563	587	628	707	744	806	818	835	864
TOTAL OIL SANDS	659	744	863	994	993	1 267	1 413	1 512	1 678	1 884	2 055	2 264	2 398	2 538	2 692
WESTERN CANADA OIL PRODUCTION	2 071	2 065	2 147	2 245	2 221	2 461	2 575	2 642	2 778	2 950	3 084	3 252	3 348	3 453	3 571
TOTAL CANADA OIL PRODUCTION	2 220	2 350	2 484	2 560	2 536	2 831	2 910	2 947	3 053	3 195	3 364	3 522	3 673	3 758	3 861

Note:
* Re-allocates Saskatchewan Area III "Medium" into medium and heavy. Reserves data shows about 17% of Area III is > 900 kg/m3
Source: CAPP
Date: July 2005

**TABLE 2
CANADIAN CRUDE OIL FORECAST, 2005 - 2015
PRODUCTION - MODERATE CASE**

	<i>Thousand Cubic Meters Per Day</i>														
	<u>2001</u>	<u>2002</u>	<u>2003</u>	Actuals <u>2004</u>	Forecast <u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
CONVENTIONAL															
Light & Medium															
Alberta	77	70	66	62	60	58	55	53	51	49	47	45	43	42	40
B.C.	7	7	6	6	5	5	5	5	5	4	4	4	4	4	4
Saskatchewan	23	22	22	22	21	20	19	19	18	17	17	16	15	15	14
Manitoba	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
N.W.T.	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2
Total Conv. Light and Medium	112	104	99	94	91	88	84	81	78	75	72	69	66	63	61
Heavy															
Alberta Conv. Heavy	38	35	34	34	33	33	32	31	31	30	29	27	26	24	23
Saskatchewan Conv. Heavy*	45	45	45	45	45	44	43	42	41	40	39	37	35	33	31
Total Conventional Heavy	83	80	79	79	78	77	75	74	72	70	67	64	61	58	55
TOTAL CONVENTIONAL	195	184	178	173	170	164	159	154	150	144	139	132	127	121	115
PENTANES/CONDENSATE	30	26	26	26	26	25	25	25	25	25	25	25	25	24	24
OIL SANDS															
Oil Sands Mining	55	70	82	97	90	126	135	147	167	187	208	232	251	271	291
Oil Sands In-Situ	49	48	55	61	68	76	90	93	100	112	118	128	130	133	137
TOTAL OIL SANDS	105	118	137	158	158	201	225	240	267	300	327	360	381	404	428
WESTERN CANADA OIL PRODUCTION	329	328	341	357	353	391	409	420	442	469	490	517	532	549	568
TOTAL CANADA OIL PRODUCTION	353	374	395	407	403	450	463	469	485	508	535	560	584	597	614

Note:
 * Re-allocates Saskatchewan Area III "Medium" into medium and heavy. Reserves data shows about 17% of Area III is > 900 kg/m3
 Source: CAPP
 Date: July 2005

TABLE 3
WESTERN CANADIAN CRUDE OIL FORECAST, 2005 - 2015
MODERATE CASE
BLENDING SUPPLY to Trunk Pipelines and Markets

	Thousand barrels per day														
	2001	2002	2003	Actuals 2004	Forecast 2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
CONVENTIONAL															
Light & Medium															
Alberta	481	438	414	389	377	362	347	334	320	307	295	283	272	261	251
B.C.	43	42	37	35	34	32	31	30	29	27	26	25	24	23	22
Saskatchewan	143	139	138	137	133	128	123	118	113	108	104	100	96	92	88
Manitoba	11	11	11	11	11	10	10	9	9	9	8	8	8	7	7
N.W.T.	25	24	22	21	21	20	19	18	18	17	16	15	15	14	14
Total Light and Medium	704	653	622	593	575	552	530	509	488	469	450	432	415	398	382
Blended Heavy															
Alberta Conv. Heavy	271	253	242	237	234	229	225	220	216	210	201	191	182	172	164
Saskatchewan Conv. Heavy	306	308	296	303	300	294	288	282	276	268	257	245	232	221	210
Conventional Heavy (Pre-Upgraders)	577	560	537	539	534	523	513	502	492	478	459	436	414	393	373
Western Canada Upgrader Feedstock	114	117	119	144	145	147	148	148	149	150	150	151	151	152	152
Net Conventional Heavy to Market	463	443	418	395	389	376	365	354	343	328	309	285	263	241	221
TOTAL CONVENTIONAL	1 166	1 097	1 041	988	964	928	895	863	832	796	759	717	678	639	604
PENTANES / CONDENSATE	37	37	30	22	22	22	22	22	22	22	22	22	22	22	22
OIL SANDS															
Upgraded Light (Synthetic)	377	465	492	560	528	646	636	665	688	608	644	698	813	886	889
Heavy Equivelant															
Dil Bit Blend and Synthetic Heavy	435	446	531	587	553	644	632	656	694	702	706	736	710	744	694
Syn-Bit	6	5	7	69	144	215	383	431	535	816	945	1 073	1 117	1 153	1 354
Total Heavy Equivelant	441	451	538	656	697	859	1 015	1 086	1 229	1 518	1 651	1 809	1 827	1 897	2 047
TOTAL OIL SANDS (and Upgraders)	818	917	1 030	1 216	1 224	1 505	1 652	1 751	1 918	2 125	2 296	2 506	2 640	2 783	2 936
Total Light Supply	1 118	1 156	1 144	1 175	1 125	1 220	1 188	1 195	1 199	1 098	1 116	1 152	1 250	1 306	1 293
Total Heavy Supply	904	895	956	1 051	1 086	1 235	1 380	1 441	1 573	1 845	1 960	2 093	2 090	2 138	2 269
WESTERN CANADA OIL SUPPLY	2 021	2 051	2 100	2 226	2 210	2 455	2 568	2 636	2 772	2 944	3 076	3 245	3 340	3 444	3 562

Note: Total supply is less than production as oil sands related distillate/diesel production is not considered as part of supply and processing gains/losses associated with upgrading.

Source: CAPP
Date: July 2005

TABLE 4
WESTERN CANADIAN CRUDE OIL FORECAST, 2005 - 2015
MODERATE CASE
BLENDED SUPPLY to Trunk Pipelines and Markets

	Thousand Cubic Meters Per Day														
	2001	2002	2003	Actual 2004	Forecast 2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
CONVENTIONAL															
Light & Medium															
Alberta	77	70	66	62	60	58	55	53	51	49	47	45	43	42	40
B.C.	7	7	6	6	5	5	5	5	5	4	4	4	4	4	4
Saskatchewan	23	22	22	22	21	20	19	19	18	17	17	16	15	15	14
Manitoba	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
N.W.T.	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2
Total Light and Medium	112	104	99	94	91	88	84	81	78	75	72	69	66	63	61
Blended Heavy															
Alberta Conv. Heavy	43	40	38	38	37	36	36	35	34	33	32	30	29	27	26
Saskatchewan Conv. Heavy	49	49	47	48	48	47	46	45	44	43	41	39	37	35	33
Conventional Heavy (Pre-Upgraders)	92	89	85	86	85	83	82	80	78	76	73	69	66	63	59
Western Canada Upgrader Feedstock	18	19	19	23	23	23	24	24	24	24	24	24	24	24	24
Net Conventional Heavy to Market	74	71	67	63	62	60	58	56	55	52	49	45	42	38	35
TOTAL CONVENTIONAL	185	174	165	157	153	148	142	137	132	127	121	114	108	102	96
PENTANES / CONDENSATE	6	6	5	3	3	3	3	3	3	3	3	3	3	3	3
OIL SANDS															
Upgraded Light (Synthetic)	60	74	78	89	84	103	101	106	109	97	102	111	129	141	141
Heavy Equivelant															
Dil Bit Blend and Synthetic Heavy	69	71	84	93	88	102	100	104	110	112	112	117	113	118	110
Syn-Bit	1	1	1	11	23	34	61	68	85	130	150	171	178	183	215
Total Heavy Equivelant	70	72	86	104	111	137	161	173	195	241	263	288	291	302	326
TOTAL OIL SANDS (and Upgraders)	130	146	164	193	195	239	263	278	305	338	365	398	420	442	467
Total Light Supply	178	184	182	187	179	194	189	190	191	175	178	183	199	208	206
Total Heavy Supply	144	142	152	167	173	196	219	229	250	293	312	333	332	340	361
WESTERN CANADA OIL SUPPLY	321	326	334	354	351	390	408	419	441	468	489	516	531	548	566

Note: Total supply is less than production as oil sands related distillate/diesel production is not considered as part of supply and processing gains/losses associated with upgrading.

Source: CAPP

Date: July 2005

**TABLE 5
CANADIAN CRUDE OIL FORECAST, 2005 - 2015
PRODUCTION - CONSTRAINED CASE**

	<i>Thousand barrels per day</i>														
	<u>2001</u>	<u>2002</u>	<u>2003</u>	Actuals <u>2004</u>	Forecast <u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
CONVENTIONAL															
Light & Medium															
Alberta	481	438	414	389	377	362	347	334	320	307	295	283	272	261	251
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Saskatchewan	143	139	138	137	133	128	123	118	113	108	104	100	96	92	88
Manitoba	11	11	11	11	11	10	10	9	9	9	8	8	8	7	7
N.W.T.	25	24	22	21	21	20	19	18	18	17	16	15	15	14	14
Total Conv. Light and Medium	704	653	622	593	575	552	530	509	488	469	450	432	415	398	382
Heavy															
Alberta Conv. Heavy	240	222	216	211	209	205	201	197	193	187	180	171	162	154	146
Saskatchewan Conv. Heavy*	283	282	282	286	283	277	272	266	261	253	243	231	219	208	198
Total Conventional Heavy	523	504	498	497	492	482	472	463	454	440	422	401	381	362	344
TOTAL CONVENTIONAL	1 226	1 157	1 120	1 089	1 067	1 034	1 002	972	942	909	872	833	796	760	726
PENTANES/CONDENSATE	186	163	164	162	161	160	159	159	158	157	156	155	155	154	153
OIL SANDS															
Oil Sands Mining	349	441	514	608	566	781	837	910	1 023	1 080	1 204	1 377	1 485	1 605	1 660
Oil Sands In-Situ	310	303	349	386	428	469	556	579	613	685	698	721	734	748	762
TOTAL OIL SANDS	659	744	863	994	993	1 250	1 393	1 489	1 637	1 765	1 902	2 098	2 219	2 353	2 422
WESTERN CANADA OIL PRODUCTION	2 071	2 065	2 147	2 245	2 221	2 444	2 555	2 619	2 736	2 831	2 931	3 087	3 170	3 267	3 301
TOTAL CANADA OIL PRODUCTION	2 220	2 351	2 484	2 559	2 536	2 814	2 890	2 924	3 011	3 076	3 211	3 357	3 495	3 572	3 591

Note:
* Re-allocates Saskatchewan Area III "Medium" into medium and heavy. Reserves data shows about 17% of Area III is > 900 kg/m3
Source: CAPP
Date: July 2005

**TABLE 6
CANADIAN CRUDE OIL FORECAST, 2005 - 2015
PRODUCTION - CONSTRAINED CASE**

	<i>Thousand Cubic Meters Per Day</i>														
	<u>2001</u>	<u>2002</u>	<u>2003</u>	Actuals <u>2004</u>	Forecast <u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
CONVENTIONAL															
Light & Medium															
Alberta	77	70	66	62	60	58	55	53	51	49	47	45	43	42	40
B.C.	7	7	6	6	5	5	5	5	5	4	4	4	4	4	4
Saskatchewan	23	22	22	22	21	20	19	19	18	17	17	16	15	15	14
Manitoba	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
N.W.T.	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2
Total Conv. Light and Medium	112	104	99	94	91	88	84	81	78	75	72	69	66	63	61
Heavy															
Alberta Conv. Heavy	38	35	34	34	33	33	32	31	31	30	29	27	26	24	23
Saskatchewan Conv. Heavy*	45	45	45	45	45	44	43	42	41	40	39	37	35	33	31
Total Conventional Heavy	83	80	79	79	78	77	75	74	72	70	67	64	61	58	55
TOTAL CONVENTIONAL	195	184	178	173	170	164	159	154	150	144	139	132	127	121	115
PENTANES/CONDENSATE	30	26	26	26	26	25	25	25	25	25	25	25	25	24	24
OIL SANDS															
Oil Sands Mining	55	70	82	97	90	124	133	145	163	172	191	219	236	255	264
Oil Sands In-Situ	49	48	55	61	68	75	88	92	98	109	111	115	117	119	121
TOTAL OIL SANDS	105	118	137	158	158	199	221	237	260	281	302	334	353	374	385
WESTERN CANADA OIL PRODUCTION	329	328	341	357	353	389	406	416	435	450	466	491	504	519	525
TOTAL CANADA OIL PRODUCTION	353	374	395	407	403	447	459	465	479	489	510	534	556	568	571

Note:
 * Re-allocates Saskatchewan Area III "Medium" into medium and heavy. Reserves data shows about 17% of Area III is > 900 kg/m3
 Source: CAPP
 Date: July 2005

TABLE 7
WESTERN CANADIAN CRUDE OIL FORECAST, 2005 - 2015
CONSTRAINED CASE
BLENDING SUPPLY to Trunk Pipelines and Markets

	Thousand barrels per day				Forecast										
	2001	2002	2003	Actuals 2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
CONVENTIONAL															
Light & Medium															
Alberta	481	438	414	389	377	362	347	334	320	307	295	283	272	261	251
B.C.	43	42	37	35	34	32	31	30	29	27	26	25	24	23	22
Saskatchewan	143	139	138	137	133	128	123	118	113	108	104	100	96	92	88
Manitoba	11	11	11	11	11	10	10	9	9	9	8	8	8	7	7
N.W.T.	25	24	22	21	21	20	19	18	18	17	16	15	15	14	14
Total Light and Medium	704	653	622	593	575	552	530	509	488	469	450	432	415	398	382
Blended Heavy															
Alberta Conv. Heavy	271	253	242	237	234	229	225	220	216	210	201	191	182	172	164
Saskatchewan Conv. Heavy	306	308	296	303	300	294	288	282	276	268	257	245	232	221	210
Conventional Heavy (Pre-Upgraders)	577	560	537	539	534	523	513	502	492	478	459	436	414	393	373
Western Canada Upgrader Feedstock	114	117	119	144	145	147	148	148	149	150	150	151	151	152	152
Net Conventional Heavy to Market	463	443	418	395	389	376	365	354	343	328	309	285	263	241	221
TOTAL CONVENTIONAL	1 166	1 097	1 041	988	964	928	895	863	832	796	759	717	678	639	604
PENTANES / CONDENSATE	37	37	30	22	22	22	22	22	22	22	22	22	22	22	22
OIL SANDS															
Upgraded Light (Synthetic)	377	465	492	560	528	659	648	676	710	684	744	836	927	1 001	1 063
Heavy Equivelant															
Dil Bit Blend and Synthetic Heavy	435	446	531	587	553	645	633	657	697	710	717	755	723	757	713
Syn-Bit	6	5	7	69	144	185	351	395	470	612	680	750	808	834	886
Total Heavy Equivelant	441	451	538	656	697	830	984	1 052	1 166	1 322	1 397	1 506	1 531	1 591	1 599
TOTAL OIL SANDS (and Upgraders)	818	917	1 030	1 216	1 224	1 489	1 632	1 728	1 877	2 006	2 141	2 341	2 457	2 593	2 662
Total Light Supply	1 118	1 156	1 144	1 175	1 125	1 233	1 200	1 207	1 221	1 175	1 216	1 290	1 363	1 421	1 467
Total Heavy Supply	904	895	956	1 051	1 086	1 206	1 348	1 406	1 510	1 649	1 705	1 790	1 793	1 833	1 820
WESTERN CANADA OIL SUPPLY	2 021	2 051	2 100	2 226	2 210	2 439	2 548	2 613	2 730	2 824	2 921	3 080	3 157	3 254	3 287

Note: Total supply is less than production as oil sands related distillate/diesel production is not considered as part of supply and processing gains/losses associated with upgrading.

Source: CAPP

Date: July 2005

TABLE 8
WESTERN CANADIAN CRUDE OIL FORECAST, 2005 - 2015
CONSTRAINED CASE
BLENDING SUPPLY to Trunk Pipelines and Markets

	Thousand Cubic Meters Per Day				Forecast										
	2001	2002	2003	Actuals 2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
CONVENTIONAL															
Light & Medium															
Alberta	77	70	66	62	60	58	55	53	51	49	47	45	43	42	40
B.C.	7	7	6	6	5	5	5	5	5	4	4	4	4	4	4
Saskatchewan	23	22	22	22	21	20	19	19	18	17	17	16	15	15	14
Manitoba	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
N.W.T.	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2
Total Light and Medium	112	104	99	94	91	88	84	81	78	75	72	69	66	63	61
Blended Heavy															
Alberta Conv. Heavy	43	40	38	38	37	36	36	35	34	33	32	30	29	27	26
Saskatchewan Conv. Heavy	49	49	47	48	48	47	46	45	44	43	41	39	37	35	33
Conventional Heavy (Pre-Upgraders)	92	89	85	86	85	83	82	80	78	76	73	69	66	63	59
Western Canada Upgrader Feedstock	18	19	19	23	23	23	24	24	24	24	24	24	24	24	24
Net Conventional Heavy to Market	74	71	67	63	62	60	58	56	55	52	49	45	42	38	35
TOTAL CONVENTIONAL	185	174	165	157	153	148	142	137	132	127	121	114	108	102	96
PENTANES / CONDENSATE	6	6	5	3	3	3	3	3	3	3	3	3	3	3	3
OIL SANDS															
Upgraded Light (Synthetic)	60	74	78	89	84	105	103	107	113	109	118	133	147	159	169
Heavy Equivelant															
Dil Bit Blend and Synthetic Heavy	69	71	84	93	88	103	101	104	111	113	114	120	115	120	113
Syn-Bit	1	1	1	11	23	29	56	63	75	97	108	119	128	133	141
Total Heavy Equivelant	70	72	86	104	111	132	156	167	185	210	222	239	243	253	254
TOTAL OIL SANDS (and Upgraders)	130	146	164	193	195	237	259	275	298	319	340	372	391	412	423
Total Light Supply	178	184	182	187	179	196	191	192	194	187	193	205	217	226	233
Total Heavy Supply	144	142	152	167	173	192	214	224	240	262	271	285	285	291	289
WESTERN CANADA OIL SUPPLY	321	326	334	354	351	388	405	415	434	449	464	490	502	517	523

Note: Total supply is less than production as oil sands related distillate/diesel production is not considered as part of supply and processing gains/losses associated with upgrading.

Source: CAPP

Date: July 2005