WEST **EAST**

b - 43 - K 94 - O - 5
KB 362 m
WA 5725

AccuCard — 00/b-043-K/094-O-05/0 (Lic 5725)

Well Header [as at February 8, 1999]

Well Name: SUNCOR LIARD B- 043-K/094-O- 05 Operator: SUNCOR INC.	License: 1981-12-15 Spud: 1982-01-11 Rig Rel: 1982-03-20
KB: 361.6 m Gr Elev: 357.0 m TVD: 2795.0 m	

DSTs

1. 1511.0-1535.0 (SCATTER)
   VO: 3/60 SI: 60/120 min
   FP: 879/704 KPa
   SIP: 1407/829 KPa
   HP: 18187/18187 KPa
   "TWO OTS. REC 90M DRLG MUD. "
2. 2761.0-2795.0 (DEBOLT)
   Misrun
3. 2761.0-2795.0 (DEBOLT)
   Misrun

Note: Quoted text is always in SI.

Cores

None available.

a - 77 - D 94 - O - 11
KB 465 m
WA 1290

AccuCard — 00/A-077-D/094-O-11/0 (Lic 1290)

Well Header [as at April 8, 1999]

Well Name: IOE PAN AM VISCOUNT A- 077-D/094-O- 11 Operator: IMPERIAL OIL RESOURCES LIMITED Lahee: Exploratory Wildcat	License: 1963-02-07 Spud: 1963-02-10 Rig Rel: 1963-07-23
KB: 465.3 m Gr Elev: 461.2 m TVD: 3188.2 m	

DSTs

1. 2068.4-2083.9
   Misrun
2. 2057.4-2083.9
   VO: 60 SI: 65/60 min
   FP: 4764/5219 KPa
   SIP: 9177/8543 KPa
   HP: 23366 KPa
   "REC 73.1M MUD ABOVE TOOL NO REC FROM THE TOOL. "
3. 2168.7-2184.5 (MATTSON,MATTSON)
   VO: 60 SI: 60/60 min
   FP: 965/414 KPa
   HP: 26131/26131 KPa
   "REC 18.2M MUD. "
4. 2237.8-2255.2 (MATTSON,MATTSON)
   VO: 60/60 SI: 30/60 min
   FP: 1186/1186 KPa
   SIP: 21745/22436 KPa
   HP: 27717 KPa
   "GTS 6 MIN @ 3268.1 M3/D IN22 MIN. (FLUID BLEW OUT OF PIPE) NO REC. "
5. 2262.5-2281.7 (MATTSON,MATTSON)
   VO: 60 SI: 30/60 min
   FP: 1648/1648 KPa
   SIP: 4137/1772 KPa
   HP: 28096 KPa
   "WAB USED 109.7M WTR CUSH REC 118.8M SLI MW. "
6. 2301.5-2328.4 (MATTSON,MATTSON)
   VO: 40 SI: 60/60 min
   FP: 2034/2034 KPa
   SIP: 3758/6447 KPa
   HP: 28579 KPa
   "(USED & REC 137.1M WTR CUSH) REC 6.1M MUD. "
7. 2338.4-2368.6 (MATTSON,MATTSON)
   VO: 30 SI: 60/65 min
   FP: 3951/6826 KPa
   SIP: 25269/24856 KPa
   HP: 29579 KPa
   "(USED 219.4M WTR CUSH) REC 192M CLEAN WTR CUSH 27.4M MDY WTR CUSH 27.4M SLI GCM 466.3M SLI M SLI GCSW. "
8. 2475.0-2495.7 (MATTSON,MATTSON)
   VO: 30/60 SI: 60/60 min
   FP: 793/793 KPa
   SIP: 17616/16789 KPa
   HP: 30544 KPa
   "GTS 15 MIN 25TM 3M FLARE REC 57.9M GCM. "
9. 2824.0-2857.8 (RUN,RUN)
   VO: 60/60 SI: 60/60 min
   FP: 586/317 KPa
   SIP: 10487/8405 KPa
   HP: 37018 KPa
   "GTS 5 MIN @ 11156.9 M3/D DECR 873.3 M3/D (SWEET GAS) REC 18.2M MUD. "

Note: Quoted text is always in SI.

a - 26 - B 94 - O - 11
KB 496 m
WA 332

AccuCard — 00/A-026-B/094-O-11/0 (Lic 332)

Well Header [as at February 8, 1999]

Well Name: IMPERIAL PAN AMERICAN TATTOO NO. 2 6 A- Operator: IMPERIAL OIL RESOURCES LIMITED	License: 1958-01-14 Spud: 1958-01-15 Rig Rel: 1958-05-15
KB: 495.4 m Gr Elev: 491.9 m TVD: 2287.5 m	

DSTs

1. 1193.9-1206.1 (SCATTER SS)
   VO: 45 SI: 30/45 min
   FP: 207/207 KPa
   SIP: 345/207 KPa
   HP: 15031/15031 KPa
   "REC 6.1M MUD. "
2. 1450.8-1460.0 (SCATTER SS)
   VO: 60 SI: 29/60 min
   FP: 310/310 KPa
   SIP: 4861 KPa
   HP: 18202/18133 KPa
   "REC 6.1M MUD. "
3. 1585.0-1589.5 (PERM)
   Misrun
   VO: 60 SI: 30/60 min
   FP: 414/414 KPa
   SIP: 3103 KPa
   HP: 19650/19650 KPa
   "REC 9.1M MUD. "
4. 1585.9-1606.9 (PERM)
   Misrun
   VO: 60 SI: 30 min
   FP: 19547 KPa
   HP: 19340/19340 KPa
5. 1576.4-1606.9 (TRI,PERM)
   Misrun
   VO: 30 SI: 30 min
   FP: 19650 KPa
   HP: 19443/19443 KPa
6. 1587.1-1606.9 (PERM)
   VO: 60 SI: 30/60 min
   FP: 207/207 KPa
   SIP: 621/896 KPa
   HP: 19547/19547 KPa
   "REC 12.1M MUD. "
7. 1846.8-1850.7 (PENN SYS)
   VO: 60 SI: 30/60 min
   FP: 310/517 KPa
   SIP: 1117O/1310 KPa
   HP: 22649/21719 KPa
   "REC 28.9M MUD. "
8. 1813.6-1822.7 (PENN SYS)
   Misrun
9. 1813.0-1822.1 (PENN SYS)
   VO: 60 SI: 60 min
   FP: 586/1034 KPa
   SIP: 16203 KPa
   HP: 22462/21615 KPa
   "REC 36.5M GC WTRY MUD. 54.8M GC MDY FR WTR. "

Note: Quoted text is always in SI.

Cores

656.8-662.9 m, 1014.4-1020.5, 1313.4-1319.5, 1505.7-1511.8, 1619.4-1622.5, 1770.6-1776.7, 1983.0-1989.1, 2079.3-2085.4, 2283.3-2287.5 m

d - 87 - A 94 - O - 11
KB 562 m
WA 3330

AccuCard — 00/D-087-A/094-O-11/0 (Lic 3330)

Well Header [as at February 8, 1999]

Well Name: ENCO WINDFLOWER D- 087-A/094-O- 11 Operator: ENCO GAS, LTD.	License: 1973-02-07 Spud: 1973-03-05 Rig Rel: 1973-03-22
KB: 562.3 m Gr Elev: 558.3 m TVD: 823.0 m	

DSTs

1. 422.1-445.0 (GARBUTT,BELL,MATTSON)
   VO: 3/60 SI: 30/60 min
   FP: 1324/1917 KPa
   SIP: 3544/3544 KPa
   HP: 4433/4447 KPa
   "GTS ON PREFLOW MAX 33076.2M3/D NO REC. "
2. 452.6-468.7 (MATTSON,MATTSON)
   VO: 5/60 SI: 45/60 min
   FP: 1165/1910 KPa
   SIP: 3952/3661 KPa
   HP: 4895/4950 KPa
   "GTS 1 MIN AT 33076.2M3/D NO REC. "
3. 757.4-823.0 (DRMCUT)
   VO: 5/120 SI: 60/120 min
   FP: 5426/5371 KPa
   SIP: 8529/8529 KPa
   HP: 8267/8308 KPa
   "GTS 2 MIN WEAK GAS BLOW ON VO REC 22.8M MUD. "

Note: Quoted text is always in SI.

Cores

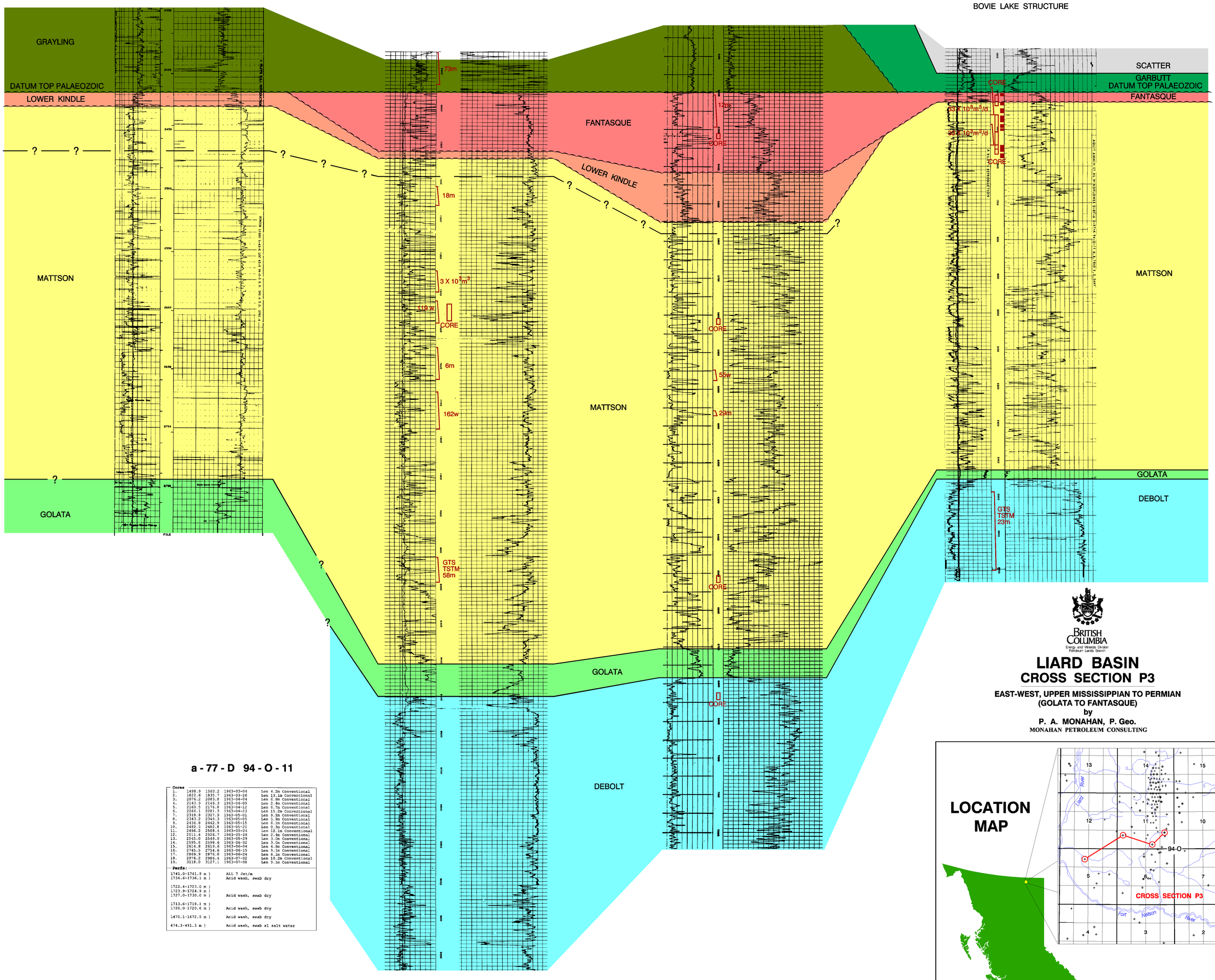
1.	428.5	437.4	1973-03-10	Len 8.5m Conventional
2.	428.5	437.4	1973-03-10	Len 8.5m Conventional
3.	445.0	459.9	1973-03-11	Len 14.9m Conventional
4.	459.9	469.7	1973-03-12	Len 9.4m Conventional
5.	469.7	472.1	1973-03-12	Len 2.4m Conventional
6.	472.1	477.3	1973-03-13	Len 4.7m Conventional

Perfs:

476.7-481.6 m) 7 spm
428.5-429.8 m) FLWD 56.3 x 10^3 m^3/D
434.6-436.5 m)
440.4-443.5 m)
445.6-450.8 m)
452.9-455.4 m)
456.6-457.8 m)
470.3-474.9 m) 20.5 m^3 ACID, FLOW 18 Hrs Max 279 10^3 m^3/D TP 2861 kPa CP 1145 KPa

4 POINT TEST

ERS	MMCF/D	ORIF	TP
8	6.008	3/4	461
8	7.426	1"	435
8	8.811	1 1/4"	422
24	9.915	1 1/2"	414



a - 77 - D 94 - O - 11

Cores

1.	1498.9	1503.2	1963-03-04	Len 4.2m Conventional
2.	1822.6	1835.7	1963-03-26	Len 13.1m Conventional
3.	2076.2	2083.8	1963-04-04	Len 6.8m Conventional
4.	2143.9	2146.3	1963-04-09	Len 2.4m Conventional
5.	2169.5	2176.8	1963-04-12	Len 6.7m Conventional
6.	2266.1	2281.3	1963-04-23	Len 15.2m Conventional
7.	2318.8	2327.9	1963-05-01	Len 9.1m Conventional
8.	2343.2	2349.3	1963-05-05	Len 3.9m Conventional
9.	2436.8	2442.9	1963-05-15	Len 6.1m Conventional
10.	2482.5	2482.8	1963-05-20	Len 0.3m Conventional
11.	2496.2	2508.4	1963-05-24	Len 12.1m Conventional
12.	2511.4	2526.7	1963-05-26	Len 2.4m Conventional
13.	2545.0	2548.0	1963-05-29	Len 3.0m Conventional
14.	2595.6	2598.6	1963-06-02	Len 3.0m Conventional
15.	2614.8	2619.6	1963-06-04	Len 4.8m Conventional
16.	2745.5	2754.6	1963-06-15	Len 9.1m Conventional
17.	2869.9	2876.0	1963-06-24	Len 6.1m Conventional
18.	2976.2	2986.4	1963-07-02	Len 10.2m Conventional
19.	3118.0	3127.1	1963-07-08	Len 9.1m Conventional

Perfs:

1741.0-1741.9 m) ALL 7 Jet/m
1734.6-1736.1 m) Acid wash, swab dry

1722.4-1723.0 m)
1723.9-1724.9 m)
1727.0-1730.0 m) Acid wash, swab dry

1713.6-1719.1 m)
1720.0-1720.6 m) Acid wash, swab dry

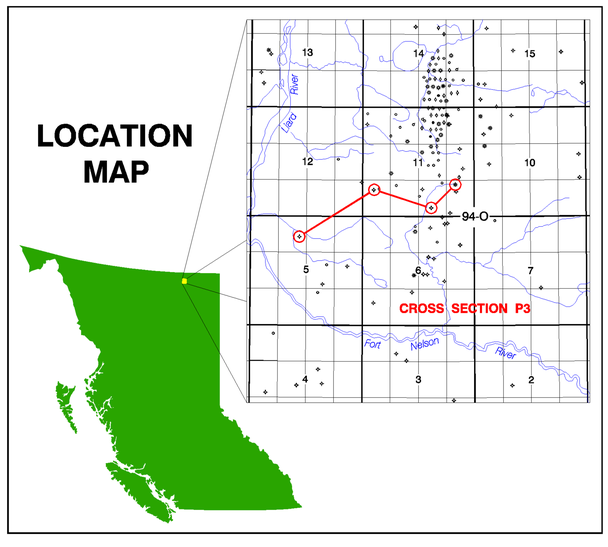
1470.1-1472.5 m) Acid wash, swab dry

474.3-491.3 m) Acid wash, swab sl salt water

BRITISH COLUMBIA
Energy and Minerals Division
Petroleum Lands Branch

LIARD BASIN
CROSS SECTION P3

EAST-WEST, UPPER MISSISSIPPIAN TO PERMIAN (GOLATA TO FANTASQUE)
by
P. A. MONAHAN, P. Geo.
MONAHAN PETROLEUM CONSULTING



ArmitageCAD COMPUTER DRAFTING
Acknowledgement is made to AccuMap EnerData, A Division of GC Data, for the use of well data ticket information
iDC Acknowledgement is made to International Datashare Corporation, for the use of halliscale well log products