

HEYCO

PETROLEUM PRODUCERS



HARVEY E. YATES COMPANY

P.O. BOX 1933

ONE SUNWEST CENTRE

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ROSWELL, NEW MEXICO 88202-1933

RECEIVED February 27, 2004

MAR 01 2004

Bureau of Land Management
Roswell District Office
2909 West Second
Roswell, New Mexico 88201

Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505

Attention: Deputy Minerals Manager
for Oil and Gas

Re: Young Deep Unit
Contract #14-08-0001-18042
T-18S, R-32E, N.M.P.M.
Lea County, New Mexico
2004 Plan of Development and Operation

Ladies & Gentlemen:

Harvey E. Yates Company (HEYCO), as Unit Operator, submits its 2004 Plan of Development and Operation (in triplicate) as prescribed by Section 10 of the Young Deep Unit Agreement. This plan covers the Bone Spring, Delaware and Wolfcamp Participating Areas in the Young Deep Unit.

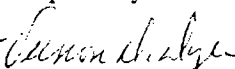
In this regard, we are enclosing a current unit map (which is unchanged from last year's map) showing all existing wells. Also included is production data for 2003, prepared by Jen Atkinson, HEYCO's Production Analyst.

HEYCO has three water injection wells (#5, #16 and 3 Fed. #1). Two wells are Delaware producers (#28 and #34) and one is a Wolfcamp producer (#1). All others are Bone Spring producers. HEYCO permanently plugged the Young Deep 4 Fed. #1 and the Young Deep 3 Fed. #3 in 1996 (see enclosed list of Unit wells).

Last year HEYCO completed a study of the Bone Spring sands and carbonates in the Young Deep Unit and, at this time, we are reviewing our modeling efforts to determine the information furnished from this study. It is anticipated HEYCO will begin workovers on some of the existing wells this year, as well as propose additional wells for drilling in the Young Deep Unit.

Based on the information submitted herewith, HEYCO respectfully requests the Bureau of Land Management approve this 2004 Plan of Development and Operation. We will be glad to supply further information if such is required.

Respectfully submitted,


Vernon D. Dyer, CPL #3174
Land Manager

VDD/dlm
Enclosures

Ydupod2004.doc/Land.ydu#3

xc: Oil Conservation Division (w/encl.)
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87505
Attn: Roy E. Johnson, Sr. Petroleum Geologist

R-W11 PEAR-1 PEAR-2 PEAR-3 PEAR 16

PEAR-3

AR-2 PEAR-1 PEAR-1 PEAR-2 PEAR-1

AMOCO 2-3

2E05G

PEAR-1

FED-1

FED-2

18/32

FED3-1

AR-2 PEAR-1 PEAR-1

L3-1

NY3F1

AM2-1

PEAR-1

PEAR-W11

YDU 44

YDU27

YDU12

YDU9

YDU10

YDU3-3

YDU3-5

AZD-1

AE

AR-1

VF-1

BLANCO 5-1

YDU22

YDU4-3

YDU4-1

YDU4-2

YDU7

YDU6

YDU3-1

YDU3-2

AZD-1

YDU-37

YDU-36

YDU25

YDU30

YDU-38

DM-1

YDU17

YDU13

YDU14

YDU8

YDU1

YDU2

YDU5

OR-1

DM-2

YDU16

YDU11

YDU15

YDU4

YDU 43

YDU24

YDU26

YDU3-2

YDU3

YDU20

YDU18

YDU23

YDU31

YDU29

YDU 41

YDU-39

P-1

WY8-1

YDU 42

FED_FOXING UT

YOUNG DEEP UNIT

STROUP-1

WLKR-3

YDU 35

YDU 34

YDU 28

KT-1

INCA-11

YNG_UT-1

YNG 16

MIT-2

MTCH 16

SH15-1

YNG_UT-4

MT16-3

MTCH 16-5

YNG_UT-6

YNG_UT-7

YNG_UT-W18

2E17G

Scale 1:24000.

0.1 0.1 0.2 0.3 0.4 0.5 miles



HARVEY E. YATES COMPANY

YOUNG DEEP UNIT

T-18-S, R-32-E

LEA COUNTY, NEW MEXICO

Ramon Reyes

179 2003

Scale 1:24000.

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YOUNG DEEP UNIT OIL PRODUCTION IN 2003 (in Bbls)

Well Name	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Totals
Young Dp Unit #1	1289	1169	1269	1216	1276	1217	1228	1206	1198	1200	1204	1219	14679
Young Dp Unit #2	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #4	134	114	137	80	79	107	133	131	3	4	66	63	1051
Young Dp Unit #6	149	169	160	146	144	166	81	81	161	191	108	118	1844
Young Dp Unit #7	27	28	27	42	28	34	36	32	36	31	44	52	417
Young Dp Unit #8	271	227	267	337	332	396	679	686	233	276	299	324	4126
Young Dp Unit #9	23	69	66	31	17	24	26	31	27	31	0	31	366
Young Dp Unit #10	16	17	16	26	16	44	63	68	90	106	76	82	617
Young Dp Unit #11	348	294	247	273	270	366	292	290	14	16	396	399	3195
Young Dp Unit #12	683	606	671	641	619	624	681	619	687	670	666	672	7438
Young Dp Unit #13	213	181	217	174	172	260	200	197	863	1144	197	199	4127
Young Dp Unit #14	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #15	146	124	149	72	72	97	178	176	8	9	166	167	1364
Young Dp Unit #17	216	183	110	492	488	269	206	202	11	13	221	223	2632
Young Dp Unit #18	132	100	120	134	128	108	116	104	102	116	123	118	1398
Young Dp Unit #20	376	262	247	219	204	269	321	306	287	270	66	387	3192
Young Dp Unit #21	89	74	271	132	130	120	180	182	143	169	133	60	1683
Young Dp Unit #22	141	120	99	47	48	120	112	110	5	6	74	74	966
Young Dp Unit #23	220	160	206	168	219	164	210	126	207	161	186	208	2223
Young Dp Unit #24	226	220	244	231	226	210	218	177	263	231	230	234	2699
Young Dp Unit #25	222	139	203	141	143	141	102	88	106	112	66	87	1649
Young Dp Unit #26	286	306	287	280	276	76	177	179	170	128	193	211	2666
Young Dp Unit #27	167	146	168	161	143	139	148	166	139	160	164	144	1803
Young Dp Unit #28	236	210	228	222	230	214	227	226	226	232	228	231	2708
Young Dp Unit #30	283	196	203	182	190	161	162	86	188	400	179	237	2466
Young Dp Unit #31	139	99	160	143	131	121	112	130	121	144	109	128	1626
Young Dp Unit #32	236	328	266	296	220	139	143	124	80	74	76	60	2030
Young Dp Unit #33	106	78	76	70	47	117	112	96	83	87	61	67	990
Young Dp Unit #34	198	167	166	167	169	213	166	198	182	176	176	184	2149
Young Dp Unit #36	309	274	278	363	349	336	360	322	140	268	176	326	3477
Young Dp Unit #37	321	284	307	213	184	189	93	93	81	74	82	120	2041
Young Dp Unit #38	394	330	346	162	616	317	267	289	304	331	237	648	4039
Young Dp Unit 3 Fed #1	9174	9863	12776	17463	13674	11837	13640	12913	12666	13768	13070	12248	162972
Young Dp Unit 3 Fed #2	402	348	392	662	386	166	472	463	488	604	464	476	6121
Young Dp Unit 3 Fed #6	369	310	327	178	161	272	212	233	236	243	219	229	2878
Young Dp Unit 4 Fed #2	240	266	132	174	171	129	97	97	90	102	239	260	1987
Young Dp Unit 4 Fed #3	260	232	231	310	260	232	283	276	236	297	261	264	3124
	18009	17641	21023	26636	21892	19319	21621	20607	18777	21632	20109	20446	247310

YOUNG DEEP UNIT GAS PRODUCTION IN 2003 (in MCFs)

Well Name	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	TOTAL
Young Dp Unit #1	3220	2900	3236	3131	3169	2744	3213	3214	3054	3074	2969	3094	37017
Young Dp Unit #2	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #4	120	106	140	0	0	0	200	195	227	237	22	206	1462
Young Dp Unit #6	861	822	936	773	760	768	1082	1083	1016	1046	1064	1167	11347
Young Dp Unit #7	161	144	166	221	148	107	134	119	136	103	129	165	1716
Young Dp Unit #8	636	482	413	508	493	556	841	641	606	623	436	482	6117
Young Dp Unit #9	104	240	274	128	71	42	52	66	49	49	0	70	1145
Young Dp Unit #10	72	69	79	108	64	96	493	528	345	356	483	535	3226
Young Dp Unit #11	1172	1040	966	1198	1228	1160	1060	1032	1173	1229	972	966	13166
Young Dp Unit #12	2331	2082	2461	2396	2426	2155	2373	2429	2219	2170	1970	2156	27168
Young Dp Unit #13	790	700	927	869	891	824	769	739	783	820	768	766	9626
Young Dp Unit #14	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #15	383	339	449	240	246	174	380	370	464	518	384	378	4356
Young Dp Unit #17	790	700	616	1031	1066	824	768	739	697	626	768	766	8162
Young Dp Unit #18	234	207	261	276	233	199	203	168	161	220	240	246	2647
Young Dp Unit #20	699	410	626	642	636	640	604	797	666	498	627	473	6717
Young Dp Unit #21	493	386	422	438	426	286	641	641	327	336	440	199	4804
Young Dp Unit #22	790	700	471	646	686	608	1019	992	721	766	627	617	8631
Young Dp Unit #23	644	461	536	561	596	488	626	460	518	498	463	493	6234
Young Dp Unit #24	516	444	486	482	489	389	486	394	478	462	446	430	5601
Young Dp Unit #25	2206	1963	2166	2066	1944	1680	1933	1766	1900	2484	1799	1966	23676
Young Dp Unit #26	914	883	1006	831	806	382	664	664	333	217	666	616	7861
Young Dp Unit #27	242	209	269	243	202	249	244	268	274	286	301	246	3021
Young Dp Unit #28	327	299	329	348	309	323	362	338	350	347	360	342	4024
Young Dp Unit #30	3388	3024	3336	3184	2994	2162	2637	2228	1469	881	1280	1401	27984
Young Dp Unit #31	182	166	191	140	64	169	241	260	243	244	201	214	2284
Young Dp Unit #32	867	852	940	897	843	1898	2304	1649	1866	1940	1224	1339	16408
Young Dp Unit #33	1777	1681	1743	1664	1666	299	647	1168	1267	1691	1152	1261	16706
Young Dp Unit #34	201	168	216	173	163	319	313	317	283	292	192	192	2808
Young Dp Unit #36	1364	1224	1361	1343	1326	901	903	911	737	419	660	760	11919
Young Dp Unit #37	1462	1292	1438	1419	1400	1629	1666	1647	1433	1637	1264	1476	17662
Young Dp Unit #38	0	6	4	0	6	2	0	4	1	3	4	18	47
Young Dp Unit 3 Fed #1	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit 3 Fed #2	26	23	28	221	163	43	164	169	149	149	130	134	1379
Young Dp Unit 3 Fed #5	930	826	926	720	966	664	963	1123	992	993	863	863	10647
Young Dp Unit 4 Fed #2	1981	1912	1196	1260	1213	1008	1442	1446	1160	1166	1496	1660	16620
Young Dp Unit 4 Fed #3	1636	1387	1611	1677	1630	1428	1766	1746	1663	1614	1496	1616	18667

31306 26004 29908 29711 28769 26096 30734 29979 27184 27771 26666 27203 341331

YOUNG DEEP UNIT WATER PRODUCTION IN 2003

Well Name	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	TOTAL
Young Dp Unit #1	263	243	267	264	279	307	262	221	243	204	186	137	2866
Young Dp Unit #2	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #4	937	763	787	197	219	624	646	897	1321	1127	893	867	9168
Young Dp Unit #6	0	0	0	0	0	106	40	37	0	0	0	0	183
Young Dp Unit #7	260	266	4	6	6	6	6	6	0	0	0	0	646
Young Dp Unit #8	0	0	1378	1430	1681	1409	1498	1372	899	1107	1140	1466	13276
Young Dp Unit #9	760	1782	24	16	9	28	34	39	33	39	0	32	2786
Young Dp Unit #10	620	609	7	12	8	206	7	7	0	0	0	0	1276
Young Dp Unit #11	0	0	17	12	13	60	28	46	21	18	202	210	617
Young Dp Unit #12	119	76	90	77	64	77	61	72	71	112	60	61	940
Young Dp Unit #13	0	0	0	28	31	62	70	116	80	77	38	39	660
Young Dp Unit #14	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #16	0	0	0	63	70	200	77	127	42	36	23	24	662
Young Dp Unit #17	0	0	16	437	487	160	91	149	66	47	94	98	1824
Young Dp Unit #18	24	81	21	12	61	48	60	27	66	24	18	27	469
Young Dp Unit #20	48	62	49	60	64	73	60	28	66	29	46	42	616
Young Dp Unit #21	0	0	2121	1624	1786	1663	2201	2019	1778	2189	1188	666	17104
Young Dp Unit #22	0	0	9	8	9	0	28	46	21	18	14	16	168
Young Dp Unit #23	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #24	66	16	26	16	11	20	11	18	21	21	14	36	264
Young Dp Unit #25	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #26	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #27	600	678	848	679	674	636	609	667	414	613	694	669	6891
Young Dp Unit #28	33	33	93	33	64	93	30	81	24	96	27	24	621
Young Dp Unit #30	0	0	12	0	0	0	0	0	8	26	9	6	69
Young Dp Unit #31	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #32	0	0	0	0	0	0	0	0	6	8	40	13	66
Young Dp Unit #33	4	13	0	0	6	1	8	3	0	0	0	0	36
Young Dp Unit #34	1014	1060	863	1244	926	716	726	714	709	667	768	836	10213
Young Dp Unit #36	36	0	33	9	12	0	16	6	3	81	3	6	204
Young Dp Unit #37	0	0	0	0	0	6	0	0	0	0	0	0	6
Young Dp Unit #38	0	6	4	0	6	2	0	4	1	3	4	19	47
Young Dp Unit #3 Fed #1	0	0	0	0	0	0	0	0	0	0	0	0	0
Young Dp Unit #3 Fed #2	2334	1940	1986	2736	1649	661	2312	2288	2319	2343	2086	2360	24912
Young Dp Unit #3 Fed #6	308	266	246	126	93	306	0	0	0	0	0	0	1333
Young Dp Unit #4 Fed #2	0	0	0	8	9	0	0	0	0	0	8	10	36
Young Dp Unit #4 Fed #3	9	3	3	67	0	0	16	39	0	46	0	30	201
	7316	7764	8701	9031	7926	7337	8683	8917	8211	8919	7462	7682	97837

YOUNG DEEP UNIT WELL LOCATIONS
All in Township 18 South, Range 32 East
Lea County, New Mexico

Well Name	API #	Unit - Sec - Twp - Rge	Qtr Qtr	Footage	Remarks
Young Dp Unit #01	30-026-26640	D-10-18S-32E	NW NW	660' FNL & 660' FWL	
Young Dp Unit #02	30-026-27121	C-10-18S-32E	NE NW	660' FNL & 1980' FWL	Shut in 10/1997
Young Dp Unit #03	30-026-27229	G-10-18S-32E	SW NE	1980' FNL & 1980' FEL	P&A 12/04/1984
Young Dp Unit #04	30-026-27300	H-09-18S-32E	SE NE	1980' FNL & 660' FEL	
Young Dp Unit #05	30-026-27336	B-10-18S-32E	NW NE	660' FNL & 1980' FEL	Injection Well
Young Dp Unit #06	30-026-27477	N-03-18S-32E	SE SW	660' FSL & 1980' FWL	
Young Dp Unit #07	30-026-27647	M-03-18S-32E	SW SW	660' FSL & 660' FWL	
Young Dp Unit #08	30-026-27636	A-09-18S-32E	NE NE	660' FNL & 860' FEL	
Young Dp Unit #09	30-026-28400	L-03-18S-32E	NW SW	1980' FSL & 660' FWL	
Young Dp Unit #10	30-026-28473	K-03-18S-32E	NE SW	2080' FSL & 1980' FWL	
Young Dp Unit #11	30-026-28793	F-09-18S-32E	SE NW	1660' FNL & 1980' FWL	
Young Dp Unit #12	30-026-30866	I-04-18S-32E	NE SE	1660' FSL & 330' FEL	
Young Dp Unit #13	30-026-28966	C-09-18S-32E	NE NW	660' FNL & 1980' FWL	
Young Dp Unit #14	30-026-29016	B-09-18S-32E	NW NE	660' FNL & 1980' FEL	P&A 1/24/2004
Young Dp Unit #15	30-026-29046	G-09-18S-32E	SW NE	1660' FNL & 1980' FEL	
Young Dp Unit #16	30-026-29047	E-09-18S-32E	SW NW	1980' FNL & 660' FWL	Injection Well
Young Dp Unit #17	30-026-29060	D-09-18S-32E	NW NW	660' FNL & 660' FWL	
Young Dp Unit #18	30-026-31369	K-09-18S-32E	NE SW	1980' FSL & 1980' FWL	
Young Dp Unit #19	30-026-29278	B-9-18S-32E	NW NE	330' FNL & 1980' FEL	Dry Hole
Young Dp Unit #20	30-026-30866	I-04-18S-32E	NW SW	2310' FSL & 660' FWL	
Young Dp Unit #21	30-026-32288	K-03-18S-32E	NE SW	1330' FSL & 1330' FWL	
Young Dp Unit #22	30-026-29253	M-04-18S-32E	SW SW	660' FSL & 660' FWL	
Young Dp Unit #23	30-026-29896	J-09-18S-32E	NW SE	2310' FSL & 1980' FEL	
Young Dp Unit #24	30-026-30783	E-10-18S-32E	SW NW	1660' FNL & 660' FWL	
Young Dp Unit #25	30-026-33173	D-10-18S-32E	NW NW	100' FNL & 310' FWL	
Young Dp Unit #26	30-026-30962	F-10-18S-32E	SE NW	1660' FNL & 1660' FWL	
Young Dp Unit #27	30-026-30976	J-04-18S-32E	NW SE	1660' FSL & 1660' FEL	P&A 12/16/1993
Young Dp Unit #28	30-026-31048	P-09-18S-32E	SE SE	330' FSL & 990' FEL	
Young Dp Unit #29	30-026-31299	K-10-18S-32E	NE SW	2310' FSL & 1660' FWL	
Young Dp Unit #30	30-026-33174	C-10-18S-32E	NE NW	100' FNL & 1330' FWL	
Young Dp Unit #31	30-026-31093	I-09-18S-32E	NE SW	1980' FSL & 660' FEL	
Young Dp Unit #32	30-026-33316	C-10-18S-32E	NE NW	990' FNL & 1660' FWL	
Young Dp Unit #33	30-026-33462	M-03-18S-32E	SW SW	1310' FSL & 260' FWL	
Young Dp Unit #34	30-026-31467	O-09-18S-32E	SW SE	330' FSL & 1916' FEL	
Young Dp Unit #35	30-026-31696	N-09-18S-32E	SE SW	330' FSL & 2310' FWL	P&A 6/12/1992

YOUNG DEEP UNIT WELL LOCATIONS
All in Township 18 South, Range 32 East
Lea County, New Mexico

Young Dp Unit #36	30-025-33642	A-09-18S-32E	NE NE	70' FNL & 1310' FEL	
Young Dp Unit #37	30-025-33643	B-09-18S-32E	NW NE	70' FNL & 2630' FEL	
Young Dp Unit #38	30-025-33864	B-10-18S-32E	NW NE	100' FNL & 2310' FEL	
Young Dp Unit 3 Fed #1	30-025-27369	O-03-18S-32E	SW SE	660' FSL & 1980' FEL	Injection Well
Young Dp Unit 3 Fed #2	30-025-28907	P-03-18S-32E	SE SE	660' FSL & 660' FEL	Shut in 3/1998
Young Dp Unit 3 Fed #3	30-025-27634	J-03-18S-32E	NW SE	1980' FSL & 1980' FEL	P&A 8/6/1993
Young Dp Unit 3 Fed #4	30-025-28481	O-03-18S-32E	SW SE	1200' FSL & 1660' FEL	Shut in 1/1/1998
Young Dp Unit 3 Fed #6	30-025-28718	I-03-18S-32E	NE SE	1980' FSL & 1660' FEL	
Young Dp Unit 4 Fed #1	30-025-26813	O-04-18S-32E	SW SE	660' FSL & 1980' FEL	P&A 8/8/1996
Young Dp Unit 4 Fed #2	30-025-27679	P-04-18S-32E	SE SE	660' FSL & 660' FEL	
Young Dp Unit 4 Fed #3	30-025-29268	N-04-18S-32E	SE SW	660' FSL & 1980' FWL	

WELLS DISBURSED SEPARATELY

WELLS GOING TO BATTERY NO. 1

WELLS GOING TO BATTERY NO. 11

PARTICIPATING AREAS

- #01 - Wolfcamp
- #07 - Non-consent
- #12
- #18 - Non-consent
- #20 - Non-consent
- #23 - Non-consent
- #24 - Non-consent
- #25
- #28 - Delaware
- #29 - Non-consent
- #30 - Non-consent
- #31 - Non-consent
- #32 - Non-consent
- #33 - Non-consent
- #34 - Delaware
- #35
- #36 - Non-consent
- #37 - Non-consent
- #38

#2 - Shut in

- #6 **
- #7 **
- #8 **
- #9
- #10
- #21
- #26 **
- 4 FED #2 **

** Note: these wells are in the battery, but disbursed on individual decks.

WELLS GOING TO THE 3 FEDERAL 1 BATTERY

- 3 FED #2, 3 FED #4 & 3 FED #5

WOLF CAMP:
Young Deep Unit #1

DELAWARE:
Young Deep Unit #28
Young Deep Unit #34

WELLS GOING TO THE 25/30 BATTERY

- #25, #30, #32 & #33

BONE SPRING:
All other Young Deep Unit wells

WELLS IN THE #36 BATTERY

- #36 & #37

WELLS GOING TO THE 4 FEDERAL 1 BATTERY

- 4 FED #3