

Initial Deliverability
Test

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA
EXCEPT BARKER DOME STORAGE AREA)

Pool Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 5-8-64
Operator PAN AMERICAN PETROLEUM CORP. Lease McCarty Gas Unit "B" Well No. 1
Unit 9 Sec. 16 Twp. 29N Rge. 12W Pay Zone: From 6178 To 6204
Casing: OD 4-1/2 WT. 10.5 Set At 6400 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 6164
Produced Through: Casing Tubing X Gas Gravity: Measured .602 Estimated
Date of Flow Test: From 3-30-64 To 4-7-64 * Date S.I.P. Measured 12-11-63
Meter Run Size 4" Orifice Size 1.250 Type Chart Sq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) psig + 12 = psia (b)
Flowing meter pressure (Dwt) psig + 12 = psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading () ² x spring constant = psia (d)
Meter error (c) - (d) or (d) - (c) ± = psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (7.00) ² x sp. const. 10 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 490 psia (h)
P_t = (h) + (f) = 490 psia (i)
Wellhead casing shut-in pressure (Dwt) 2060 psig + 12 = 2072 psia (j)
Wellhead tubing shut-in pressure (Dwt) 2050 psig + 12 = 2070 psia (k)
P_c = (j) or (k) whichever well flowed through = 2072 psia (l)
Flowing Temp. (Meter Run) °F + 460 = °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 1036 psia (n)

Q = X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} = \frac{\text{ }}{\text{ }} = \text{ } \right)^{.8449}$ = MCF/da
(Integrated)

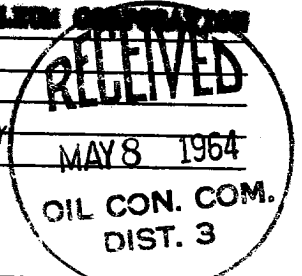
DELIVERABILITY CALCULATION

D = Q 960 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} = \frac{3,219,888}{4,091,650} \right]^n$.8449 = 811 MCF/da.

SUMMARY

P_c = 2072 psia
Q = 960 Mcf/day
P_w = 511 psia
P_d = 1036 psia
D = 811 Mcf/day

Company PAN AMERICAN PETROLEUM CORPORATION
By F. L. Nabors
Title District Engineer
Witnessed by By: ORIGINAL SIGNED BY
Company F. W. Foell



* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
4204	.263	81,467	21,426	240,100	261,526	511

[illegible]

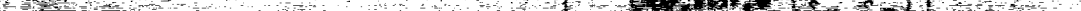
1. Project Name _____
 2. Project Number _____
 3. Project Location _____
 4. Project Start Date _____
 5. Project End Date _____
 6. Project Manager _____
 7. Project Sponsor _____
 8. Project Budget _____
 9. Project Status _____
 10. Project Description _____
 11. Project Objectives _____
 12. Project Deliverables _____
 13. Project Risks _____
 14. Project Issues _____
 15. Project Next Steps _____
 16. Project Contact Information _____
 17. Project Approval _____
 18. Project Review _____
 19. Project Summary _____
 20. Project Conclusion _____

ANNALS

[illegible]

RESTRICTED - SECURITY

DE VERBALE CALCULATION



NAME	DATE	TIME	LOCATION	REMARKS
1. J. L. ...	...	...	...	...
2. ...	...	...	...	...
3. ...	...	...	...	...
4. ...	...	...	...	...
5. ...	...	...	...	...
6. ...	...	...	...	...
7. ...	...	...	...	...
8. ...	...	...	...	...
9. ...	...	...	...	...
10. ...	...	...	...	...

1944-1945

10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-68	69-70	71-72	73-74	75-76	77-78	79-80	81-82	83-84	85-86	87-88	89-90	91-92	93-94	95-96	97-98	99-100	101-102	103-104	105-106	107-108	109-110	111-112	113-114	115-116	117-118	119-120	121-122	123-124	125-126	127-128	129-130	131-132	133-134	135-136	137-138	139-140	141-142	143-144	145-146	147-148	149-150	151-152	153-154	155-156	157-158	159-160	161-162	163-164	165-166	167-168	169-170	171-172	173-174	175-176	177-178	179-180	181-182	183-184	185-186	187-188	189-190	191-192	193-194	195-196	197-198	199-200	201-202	203-204	205-206	207-208	209-210	211-212	213-214	215-216	217-218	219-220	221-222	223-224	225-226	227-228	229-230	231-232	233-234	235-236	237-238	239-240	241-242	243-244	245-246	247-248	249-250	251-252	253-254	255-256	257-258	259-260	261-262	263-264	265-266	267-268	269-270	271-272	273-274	275-276	277-278	279-280	281-282	283-284	285-286	287-288	289-290	291-292	293-294	295-296	297-298	299-300	301-302	303-304	305-306	307-308	309-310	311-312	313-314	315-316	317-318	319-320	321-322	323-324	325-326	327-328	329-330	331-332	333-334	335-336	337-338	339-340	341-342	343-344	345-346	347-348	349-350	351-352	353-354	355-356	357-358	359-360	361-362	363-364	365-366	367-368	369-370	371-372	373-374	375-376	377-378	379-380	381-382	383-384	385-386	387-388	389-390	391-392	393-394	395-396	397-398	399-400	401-402	403-404	405-406	407-408	409-410	411-412	413-414	415-416	417-418	419-420	421-422	423-424	425-426	427-428	429-430	431-432	433-434	435-436	437-438	439-440	441-442	443-444	445-446	447-448	449-450	451-452	453-454	455-456	457-458	459-460	461-462	463-464	465-466	467-468	469-470	471-472	473-474	475-476	477-478	479-480	481-482	483-484	485-486	487-488	489-490	491-492	493-494	495-496	497-498	499-500	501-502	503-504	505-506	507-508	509-510	511-512	513-514	515-516	517-518	519-520	521-522	523-524	525-526	527-528	529-530	531-532	533-534	535-536	537-538	539-540	541-542	543-544	545-546	547-548	549-550	551-552	553-554	555-556	557-558	559-560	561-562	563-564	565-566	567-568	569-570	571-572	573-574	575-576	577-578	579-580	581-582	583-584	585-586	587-588	589-590	591-592	593-594	595-596	597-598	599-600	601-602	603-604	605-606	607-608	609-610	611-612	613-614	615-616	617-618	619-620	621-622	623-624	625-626	627-628	629-630	631-632	633-634	635-636	637-638	639-640	641-642	643-644	645-646	647-648	649-650	651-65
----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	--------