

As to steel barges: The plan which is to be proposed as a solution quickly, will furnish not less than 800 steel barges, without a pound of new plate steel. Some 50 steel tanks, 55's and 80's, were offered yesterday for cutting down and riveting up into barges, and these were from Oklahoma, unused storage, because we no longer store oil in tanks, but keep it in the ground, safe from evaporation and loss, making above-ground storage unnecessary save as to operating tanks. There is 49,000,000 barrels of empty storage right now in Texas, and more in Louisiana and Arkansas—far more than needed for an entire steel barge fleet for a daily movement of 500,000 barrels Texas-Louisiana to Norfolk and all ports on the east coast to Philadelphia and Trenton, including Miami and Pan-American and Air Force fields.

And thus, this plan will begin deliveries at the rate of 300,000 barrels daily to the upper east coast of every required kind of oil, without a pound of new steel for pipe lines or for barges or for power or for engines or for plunger type line pumps or for tanks—all this is available, now unused and readily obtainable.

Further details, necessary but not material, are being worked out. For instance, Florida law as to eminent domain, and similar matters, and when this is formulated into a complete, precise analysis, it will be sent to you and all other interested parties, within 10 days or 2 weeks.

And I might add that while pipe lines across Florida form a large project, it is not too large for financing independently and without Federal aid of any kind whatsoever, for scarcity on the east coast of oil for war is not to be taken lightly, while here in Texas, there is all kinds of disruption, physical and economic.

Your testimony as to the rapid decline of Illinois fields was extremely interesting, as caused by heavy withdrawals of oil set up by taking oil with the shortest rail haul.

The decline is caused, of course, by underground waste—excess of gas produced with the oil and consequent loss of the energy stored in the gas under pressure by natural forces, as always set up by opening wells wide to indiscriminately wasteful flow. The waste of gas and its energy thus set up results in chilling the oil remaining in place and particularly of Illinois paraffin-base crude oil, and thus the reserves which were formerly estimated and included as a part of the Nation's recoverable supply, are disappearing as unrecoverable oil. It is rather surprising to find the Interior Department setting such conditions up in view of the long-continued arguments of the Secretary for conservation.

Now, Major, if the deficiency in Illinois, of oil necessary for the rail movement, is made up by gradually extending the haul to successively southward fields, the same loss of recoverable reserves will be set up, like a sort of blight sweeping southward, over our oil fields. That must not occur; it would endanger our success in this war.

But, knowing the attitude of our Texas Railroad Commission, I feel quite certain that if this rail haul is extended to Texas, and the big inch line to the east Texas field, withdrawals of oil will not be allowed anywhere with such intensity as has already set up the damage and loss as to Illinois oil reserves, but allocations will be made by fields and individual wells therein, an even allocation, that all the work we have done in conservation will not be set aside. (And if anyone is familiar with this, it is the writer, who originated the concept of underground waste and its prevention—the now familiar gas-oil ratio method of production—and you know how we fought for this before the Texas Legislature, and against Federal authority before the committees of the Congress at Washington. Present developments as to withdrawals of excessive proportions in Illinois indicate again the evils of police power centralized in Washington.)

As to the present rail movement of oil to the east coast of 682,000 barrels, as in your testimony: This performance is creditable—as Mr. Ickes says, "Amazing." Yet, remembering severely congested rail traffic during World War I, the coming traffic peak of next winter, which we are told will be 5 times the present rail volume, will surely slow down all rail movements of every description—the present movement of oil by rail adds a little over 20 percent to volume in the district over which the tank cars now pass.

After World War I closed and I returned, I assumed vice presidency and general managership of an integrated unit shipping oil from group 3 and north Texas to the upper Chicago area by tank car. Originally, before World War I, this company owned 150 tank cars—sufficient for the movement—but as rail traffic slowed down from a usual 24 round trips per year of each tank car to just