

NOTES ON THE PRESENT CONDITION OF THE OIL WELLS OF ENNISKILLEN.*

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During a recent visit to the village of Oil-Springs, in the Township of Enniskillen, I made the following notes on the present condition of the oil wells in that quarter.

The first flowing well discovered, was that known as the "Shaw Well," on Lot 13 in the Second Concession. The Oil was "struck" in the early part of last year, and continued to flow spontaneously for about ten months. This well was formed by digging about fifty feet though clay to the rock surface, and then by boring one hundred and fifty-eight feet though the latter. The flow from this well has now entirely ceased, after discharging a total estimated quantity of 35,000 barrels.

During the past summer, or at least since the first discovery of the Shaw well, there have been found in all about thirty flowing wells of more or less value in this section. The yield of all these wells, as I was informed, was at one time as much as 12,000 barrels per day. They are all situated within an area of one square mile, and chiefly on the south bank of the Black Creek; only one having been discovered to the north of it. The number of flowing wells is now reduced to two, an old and a new one recently opened. These two wells are within a hundred feet of each other, and yield, it is said, over one hundred barrels per day each. Many of the old surface wells are now brought into requisition; and such of the old flowing wells as yet afford oil by pumping, are worked by hand. The total yield from the flowing wells and all other sources, at the present time, is said to be about four hundred barrels per day.

There is one remarkable peculiarity connected with the stoppage of the natural discharge of oil from the wells which might here be mentioned. The deepest wells invariable have been those which first ceased to flow: and the two shallowest of all the thirty wells, are those only which now yield a natural discharge of oil.

I ascertained the depth of nine separate flowing wells, at points scattered over the whole oil-producing area, to be as follows:

The deepest well...	G	is 230 feet in the rock.
" next deepest.....	I	is 208 " "
" "	B	is 200 " "
" "	C	is 182 " "
" "	H	is 180 " "
" "	D	is 162 " "
" "	A	is 158 " "
The shallowest wells { E.....is 109 } At present flow-		
{ F.....is 109 } ing		

It ought to be borne in mind, that I give the depths under the rock surface, not under the surface of the ground; the former being nearly level while the latter is very uneven. Over the surface of the rock, the thickness of clay ranges from forty feet in the flats of the creek to eighty feet on the banks.

The deepest well (G) was the first to fail; in fact this one only discharged 4,000 barrels in all.

The next on the list (I), the "Feroe" well, failed. Then the wells (B and C) at opposite extremities of the oil-producing area gave way. Then well H, in the centre, and close by the gum beds, ceased flowing. Then various intermediate wells failed; until now the only old well flowing is F, with a depth of one hundred and nine feet under the rock surface; and its companion (E), recently made, within thirty or forty yards of it, and to the same depth in the rock, yields a copious supply.

In ceasing to give a discharge of oil, these wells seem to give no previous indications of a coming change. The iron pipe which conveys the fluid from the bore in the rock to a convenient height above the surface of the ground, continues to yield a discharge; but this discharge is suddenly changed, in most instances from petroleum to salt water, and the water flows on in a continuous stream, as did the former substance.

The mention of some apparent anomalies may be of interest to those who desire to form satisfactory theories regarding the various phenomena connected with the mineral oils.

1. In the immediate neighbourhood of all the flowing wells, and on the next lot to what is termed the gum-beds, the rock was bored to a depth of three hundred feet—seventy feet lower than the lowest well—without finding the slightest trace of oil.

2. About twenty yards from the flowing well marked I, a second bore was made in the rock to a greater depth by seven feet than the first well, without finding oil.

3. In another case, the rock was bored about fifty feet from a good flowing well, and twenty-five feet deeper, without success.

4. But perhaps the most singular case is the following:—Some time after the "Shaw" well flowed so successfully, a second party bored the rock to the same depth about 100 yards from it, and found a copious discharge of oil, but this second well had the immediate effect of reducing very materially the flow from the "Shaw" well. When either was plugged up, the other yielded a full discharge; but when both were allowed to flow, each yielded only a partial supply. A third party owning a small oil lot between the two wells, commenced boring on a line drawn from the one to the other at the distance of about thirty yards from the "Shaw" well; he naturally expected to rob both wells, whilst their owners (who by this time had formed a co-partnership) had every reason to fear his certain success. All parties however were doomed to disappointment, as the third well proved an utter failure, although the rock was bored to a much greater depth than the other two wells.

I may mention that although traces of petroleum have been found at several places beyond the immediate neighbourhood of the village of Oil Springs, viz., at Bothwell, at Tilsonburgh, and at other points within a circle of perhaps ten or fifteen miles; yet with one exception, I believe no flowing well has been struck beyond the limited area shewn on the sketch. The exception referred to is at Petrolea, on lot 14 in 18th concession, Enniskillen, and about six miles from Oil Springs village. The rock is here bored to a depth of three hundred feet—five hundred and sixty-three feet under the surface of the ground—and a con-

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