Put $f_1 = z_1, \cdots f_k = z_k$.
$\Rightarrow$ We have $D \cap U = \{ z_1 \cdots z_k = 0 \}$.

The complement
$$U^* = U - U \cap D = (\Delta^*)^k \times \Delta^{n-k}$$
is a punctured polycylinder $P^*(k, n)$ given by
$$\{ z : |z_i| < 1, \ z_1, \cdots z_k \neq 0 \}.$$
Topologically, $P^*(k, n)$ is a product $\cdot X^k S^1$ of k circles.

$$\{ (z_1, z_2, z_3) ; |z_i| < 1 \} - \bigcup_{i=1}^{2} \{ z_i = 0 \}$$
$$= \{ (z_1, z_2, z_3) ; z_1 z_2 \neq 0 \}$$
$$= \Delta^* \times \Delta^* \times \Delta, \quad \text{where } \Delta^* = \{ z ; 0 < |z| < 1 \}$$
$$\Delta = \{ z ; |z| < 1 \}.$$
$\Delta^* \simeq S^1 \qquad \Delta \simeq *$
$P^*(k, n) \simeq X^k S^1$ homotopically

Denote by $\Omega^p(*D) = \bigcup_{k \geq 0} \Omega^p(kD)$ the sheaf on M of meromorphic p-forms that are holomorphic on $M^* = M - D$ and have poles of arbitrary (finite) order on D.

Recall that $\Omega^p(kD)$ is the sheaf of holomorphic p-forms with values in the holomorphic bundle $[kD]$ over M. See P36.
By the remark on P138 ~ P139,
$$\mathcal{E}(D) \longleftrightarrow \mathcal{O}(E \otimes [D]).$$
Let $E = \Lambda^p T^{*\prime} M$. $\Rightarrow \mathcal{O}(\Lambda^p T^{*\prime} M \otimes [kD]) = \Omega^p(kD)$ is identified with $\mathcal{E}(kD)$ which is the sheaf of