

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5635221

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Execution Date
DIRTT ENVIRONMENTAL SOLUTIONS LTD	07/19/2019

**RECEIVING PARTY DATA**

<b>Name:</b>	ROYAL BANK OF CANADA
<b>Street Address:</b>	335 - 8TH AVENUE SW
<b>City:</b>	CALGARY
<b>State/Country:</b>	CANADA
<b>Postal Code:</b>	T2P 1C9

**PROPERTY NUMBERS Total: 124**

Property Type	Number
Patent Number:	10301821
Patent Number:	10273743
Patent Number:	10196825
Patent Number:	RE47132
Patent Number:	10058170
Patent Number:	10030384
Patent Number:	RE46929
Patent Number:	9945131
Patent Number:	9943165
Patent Number:	9856644
Patent Number:	9840841
Patent Number:	9803360
Patent Number:	9803352
Patent Number:	9719251
Patent Number:	9670669
Patent Number:	9649831
Patent Number:	9619920
Patent Number:	9617743
Patent Number:	9593481

Property Type	Number
Patent Number:	9536340
Patent Number:	9528287
Patent Number:	9471719
Patent Number:	D760402
Patent Number:	9355197
Patent Number:	9347218
Patent Number:	D755614
Patent Number:	D754991
Patent Number:	9328542
Patent Number:	9328504
Patent Number:	D753943
Patent Number:	9315997
Patent Number:	9315985
Patent Number:	9307701
Patent Number:	9270098
Patent Number:	D745706
Patent Number:	9206612
Patent Number:	9194121
Patent Number:	9095990
Patent Number:	D734958
Patent Number:	D734872
Patent Number:	9084489
Patent Number:	D732190
Patent Number:	9059576
Patent Number:	8944266
Patent Number:	8904712
Patent Number:	D709043
Patent Number:	8762941
Patent Number:	8756893
Patent Number:	8747135
Patent Number:	D697872
Patent Number:	8621784
Patent Number:	D695690
Patent Number:	8519276
Patent Number:	8510672
Patent Number:	8500480
Patent Number:	8475188

Property Type	Number
Patent Number:	D659648
Patent Number:	D659647
Patent Number:	8176707
Patent Number:	8162686
Patent Number:	8152546
Patent Number:	8112954
Patent Number:	8056286
Patent Number:	8024901
Patent Number:	7984598
Patent Number:	7958679
Patent Number:	7954288
Patent Number:	D635277
Patent Number:	7908296
Patent Number:	D628717
Patent Number:	D628716
Patent Number:	D628715
Patent Number:	D628714
Patent Number:	7387520
Patent Number:	7277830
Patent Number:	7249005
Application Number:	15741375
Application Number:	15741488
Application Number:	15741487
Application Number:	15108626
Application Number:	15735084
Application Number:	15026566
Application Number:	15741177
Application Number:	14915990
Application Number:	14115299
Application Number:	14683684
Patent Number:	9189571
Application Number:	13579257
Patent Number:	8151527
Patent Number:	7832154
Patent Number:	7163410
Patent Number:	7410373
Patent Number:	D638367

Property Type	Number
Patent Number:	8751950
Patent Number:	8762877
Patent Number:	9519407
Patent Number:	9245064
Patent Number:	9245381
Patent Number:	6338301
Patent Number:	6669041
Patent Number:	5744750
Application Number:	16324136
Application Number:	16469062
Application Number:	16477788
Application Number:	16348256
Application Number:	16339925
Application Number:	16316333
Application Number:	15741489
Application Number:	15741180
Patent Number:	10117511
Application Number:	15038694
Application Number:	15518378
Application Number:	14433346
Application Number:	10289758
Application Number:	14032931
Patent Number:	9874010
Patent Number:	9717348
Application Number:	15074383
Patent Number:	D689823
Patent Number:	D401558
Application Number:	29678725

#### CORRESPONDENCE DATA

Fax Number: (303)893-1379

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

Phone: 3038927353

Email: pantea.garroussi@dgsllaw.com

Correspondent Name: PANTEA GARROUSSI

Address Line 1: 1550 17TH STREET, SUITE 500

Address Line 4: DENVER, COLORADO 80202

<b>SIGNATURE:</b>	/pantea garroussi/
<b>DATE SIGNED:</b>	07/24/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 60**

- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page1.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page2.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page3.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page4.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page5.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page6.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page7.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page8.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page9.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page10.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page11.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page12.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page13.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page14.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page15.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page16.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page17.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page18.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page19.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page20.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page21.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page22.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page23.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page24.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page25.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page26.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page27.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page28.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page29.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page30.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page31.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page32.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page33.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page34.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page35.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page36.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page37.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page38.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page39.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page40.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page41.tif
- source=DIRTTFINAL-IP\_Security\_Agreement\_-\_DIRTT\_RBC#page42.tif

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.